MWH

BUILDING A BETTER WORLD

GROUNDWATER MONITORING REPORT
AUGUST 2012

GENERAL ELECTRIC PUERTO RICO INVESTMENT, INC.
PATILLAS, PUERTO RICO

Prepared For:

General Electric
Energy Management

Prepared By:

MWH Americas, Inc.

October 2012

GROUNDWATER MONITORING REPORT
AUGUST 2012
GENERAL ELECTRIC PUERTO RICO INVESTMENT, INC.
PATILLAS, PUERTO RICO

FOR

General Electric Energy Management

Atlanta, Georgia

United States

Prepared By _____ October 31, 2012

Bradly Toth
Lead Scientist
MWH Americas, Inc.

Date

Reviewed By _____ October 31, 2012

Kim Kesler-Arnold
Principal Project Manager
MWH Americas, Inc.

Date

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ACRONYMS AND ABBREVIATIONS

1,1,1-TCA	1,1,1-Trichloroethane
1,1,2-TCA	1,1,2-Trichloroethane
1,1-DCA	1,1-Dichloroethane
1,1-DCE	1,1-Dichloroethene
1,2-DCA	1,2-Dichloroethane
amsl	above mean sea level
COC	constituent of concern
DO	dissolved oxygen
ft/ft	feet per foot
GE	General Electric Energy Management
HCl	hydrochloric acid
IDW	Investigation derived waste
MCL	Maximum Contaminant Level
ORP	oxidation-reduction potential
PPE	personal protection equipment
QA/QC	quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SOP	standard operating procedure
SWMU	Solid Waste Management Unit
VOCs	volatile organic compounds
µg/l	micrograms per liter
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

This Groundwater Monitoring Report describes the activities performed in August 2012 to evaluate groundwater and surface water quality in the vicinity of the General Electric (GE) Puerto Rico Investment facility (Site) located in Patillas, Puerto Rico. During this effort, MWH performed the following activities:

- Measured groundwater elevations from the existing onsite and accessible offsite monitoring wells.
- Collected groundwater samples for analysis to provide recent groundwater quality data onsite and offsite.
- Collected surface water and pore-water samples for analysis to evaluate whether VOC-impacted groundwater is venting to the Rio Grande de Patillas.

These activities were performed in accordance with the *Quality Assurance Project Plan* (QAPP, MWH, 2012), which was approved by the USEPA in May 2012. This groundwater monitoring event (August 2012) is the third of four additional monitoring events requested by the USEPA following a meeting with GE in April 2010. The two previous events were performed in August/September and December 2010. Prior sampling activities were performed in June, September and December of 2009, and in March 2010. The need for future actions is currently being evaluated in conjunction with the USEPA.

2.0 PROJECT BACKGROUND

The Site is located on the southeastern coast of Puerto Rico at Road #3, Km 122.9, Patillas, Puerto Rico. The Site location is shown on ***Figure 1***. The Site covers approximately 7.8 acres. From November 1974 to March 1987, GE (operating as Caribe General Electric Products) manufactured and assembled electro-mechanical products. A French Sump was constructed at the facility in 1977 and was used for waste disposal until 1980. The location of the sump is shown on ***Figure 2***. The Site was idle from 1987 to 1993, when no manufacturing operations were conducted. From 1993 to 2010, GE used the facility for warehousing and assembly operations under the current name of GE Puerto Rico Investment, Inc. The facility has been unused since 2010.

In October 1990, soils in and adjacent to the former French Sump were excavated, stabilized, and shipped to a Resource Conservation and Recovery Act (RCRA)-approved landfill. The USEPA accepted the closure of the sump as complete in March 1991. The impacted groundwater that is the subject of this investigation is associated with the former French Sump and extends south-southwest from the facility to the flood plain of the Rio Grande de Patillas.

Investigation of the groundwater impacts in the area of the French Sump began in 1989 as part of a RCRA Facility Investigation (RFI). Eleven onsite monitoring wells were installed adjacent to and downgradient of the former French Sump (see ***Figure 2***). Five monitoring wells were also installed offsite to assess groundwater quality. Of the 16 total wells, one onsite well (P-4A) was abandoned; one offsite well (P-12) cannot be located and was presumably destroyed; and four offsite wells (P-13S, P-13D, P-14S, and P-14D) have had their access permission rescinded by the property owner.

The *RFI Report* (SEC, 1991) was submitted to the USEPA in 1991. Quarterly groundwater sampling was conducted from 1991 through 1999. Volatile organic compounds (VOCs), namely 1,1,1-trichloroethane (1,1,1-TCA) and 1,1-dichloroethene (1,1-DCE), were identified in the RFI Report as the constituents of concern (COCs) in groundwater within the alluvial/colluvial aquifer beneath the Site. The extent of 1,1,1-TCA does not extend offsite. However, the extent of 1,1-DCE impacted groundwater extends offsite to the south-southwest, which is generally consistent with the direction of apparent groundwater flow.

In 2003, GE installed six additional monitoring wells offsite to determine the extent of the 1,1-DCE in groundwater. The results of this investigation were provided to the USEPA in a

Supplemental RFI Report (EarthTech, 2005). USEPA's response to this *Supplemental RFI Report* stated that the information was not sufficient to determine the extent of impacted groundwater, and therefore the CA-750 determination could not be completed. At the time of the Supplemental RFI, the farthest downgradient wells (P-13S/D and P-14S/D) had not been sampled for nine years, and access to these wells had been rescinded. From 1991 through 1996, these wells were sampled eight times and VOCs were not detected.

In 2006, GE installed an additional monitoring well cluster (P-20S and P-20D) to further delineate the extent of 1,1-DCE in groundwater. Analytical results from the shallow well (P-20S) did not show the presence of 1,1-DCE. However, groundwater samples from the deeper well (P-20D) indicated 1,1-DCE downgradient and offsite at a concentration of 37 to 44 micrograms per liter (µg/l), which is greater than its Maximum Contaminant Level (MCL) of 7 µg/l.

Based on these results, the USEPA requested that GE pursue access to additional downgradient properties to install monitoring wells to further define the extent of the 1,1-DCE in groundwater. GE intended to install these additional wells downgradient of P-20S/D and upgradient of P-13S/D and P-14S/S. Although numerous attempts were made by GE, access was not granted to the properties, and the wells could not be installed. As a result, GE and the USEPA agreed that the project should move forward to estimate the extent of 1,1-DCE in groundwater without the use of these wells.

In June 2009, GE performed a groundwater monitoring event, and in July 2009, GE performed fate and transport modeling to estimate the extent of 1,1-DCE in groundwater. The output of the model, which contained the necessary information to make the CA-750 determination, was provided to the USEPA in September 2009. The model estimated that 1,1-DCE may have reached the Rio Grande de Patillas at a concentration of 23 µg/L. This concentration is less than 10 times the MCL for 1,1-DCE (7 µg/L x 10, or 70 ug/L) and is considered an insignificant discharge to a surface water by the USEPA (*Documentation of Environmental Indicator Determination, RCRA Corrective Action, Environmental Indicator [EI] RCRIS code [CA750], Migration of Contaminated Groundwater Under Control*, Interim Final 2/5/99).

Subsequent to the fate and transport modeling and at the request of the USEPA, GE performed additional groundwater monitoring events (September 2009, December 2009, March 2010, and August/September 2010) and submitted the results to the USEPA and EQB. EQB has reviewed these documents.

A meeting between the USEPA and GE was held on April 22, 2010, to discuss the extent of impacted groundwater and the need for further downgradient characterization. During this meeting, GE agreed to the USEPA's request to continue groundwater monitoring on a quarterly basis for one additional year.

In June of 2010, GE ceased manufacturing operations at the Site, and in September of 2010, GE completed a Phase II Environmental Site Assessment (ESA) to document Site conditions prior to exiting the lease for the Site. The Phase II ESA included installation of 25 soil borings to an average depth of 15 feet' below ground surface, and soil sampling at several intervals within each of those 25 boring locations. The Phase II ESA also included installation of six temporary groundwater monitoring wells and four permanent monitoring wells at the Site, and their subsequent development and sampling. The results of the Phase II ESA are summarized in a separate document.

GE performed site closure and cleaning activities in March 2011, during which a 7-ft by 7-ft concrete vault was discovered northeast of the main building near the loading dock. The vault contained sediment and had several pipes entering and exiting the side walls. The sediment was removed and disposed of offsite during site closure and cleaning activities.

At the request of USEPA, in April 2011 GE agreed to evaluate whether VOC-impacted groundwater could be venting to the Rio Grande de Patillas. Surface water and pore-water sampling was proposed and approved along with the QAPP in May 2012. These sampling activities were conducted concurrently with the August 2012 groundwater monitoring event.

In September 2011, GE voluntarily collected soil and groundwater samples from the loading dock area to evaluate whether the presence of VOCs in sediment found in the concrete vault had resulted in environmental impacts. Soil and groundwater samples collected in the loading dock area indicated limited impacts to soil and groundwater associated with the vault. Based on the results of the investigation, GE decided to permanently close the vault by filling it with clean backfill and topping it with a concrete cover. In August 2012, GE conducted concrete vault closure activities at the site. The vault was backfilled with clean backfill and topped with a concrete cover. Additionally, GE installed one monitoring well (P-23) during vault closure activities. The monitoring well was installed adjacent to the vault and is intended to be included in future routine groundwater monitoring events. Vault closure activities are summarized in a separate document.

This report summarizes the field activities and results of the August 2012 groundwater monitoring event and the surface water and pore-water sampling.

3.0 FIELD ACTIVITIES

The following field activities were performed during this monitoring event:

- Measuring groundwater elevations from onsite and accessible offsite monitoring wells.
- Collecting groundwater samples from monitoring wells for laboratory analysis.
- Collecting surface and pore-water samples from the Rio Grande de Patillas for laboratory analysis.

Groundwater elevation measurements were taken by MWH on August 8, 2012. The surface and pore-water sampling activities were performed by MWH on August 21, 2012, and groundwater sampling activities were performed on August 27, 2012. The procedures used during these activities are described in the following sections.

3.1 DEPTH-TO-GROUNDWATER MEASUREMENTS

Depth-to-groundwater measurements were collected from onsite monitoring wells P-1/1A, P-2/2A, P-3/3A, P-4, P-5/5A, P-7/7A, P-8D, P-9, P-10A, P-11, P-15DD, P-16S, P-17D, P-18S/18D, P-19S/19D, P-21S and P-22S. Depth-to-groundwater was also measured at offsite wells P-20S/20D.

Groundwater depths were measured by using a decontaminated water-level meter to record the depth-to-water below a surveyed reference point (top of well casing). The water level meter was slowly lowered into the monitoring well until the meter was activated (as indicated by an audible tone). The depth-to-water reading was then measured at 30 second intervals until two consecutive readings were identical. This measurement was then recorded in the field notebook.

3.2 GROUNDWATER SAMPLING PROCEDURES AND ANALYSIS

The following 16 existing monitoring wells were sampled during this field event: P-4, P-7, P-7A, P-8, P-9, P-10A, P-11, P-15DD, P-16S, P-17D, P-18S, P-18D, P-19S, P-19D, P-20S, and P-20D. In addition, new monitoring well P-23 was sampled for a total of 17 wells sampled. Well locations are indicated on ***Figure 2***.

The groundwater samples were collected in accordance with the *Groundwater Sampling Procedure: Passive Diffusion Bag Samplers*, which was submitted to USEPA as part of the QAPP. For each monitoring well, the following sequence of activities was performed:

- The depth-to-water was measured in the monitoring well.
- A Passive Diffusion Bag (PDB) sampling assembly was installed in the well and set at a pre-determined depth to correspond with the most highly permeable zone as determined by well installation logs.
    - The PDB assemblies consist of:
        1. 12 or 18 inch low-density polyethylene sampler bag
        2. ASTM Type I Reagent Grade de-ionized water
        3. 3/16-inch polyethylene braided rope for holding the PDB sampler tethers
        4. Locking well caps with suspension ring
        5. Aluminum well identification tag
        6. Stainless steel weight
- After allowing the PDBs to equilibrate with the aquifer, the PDBs were retrieved and the samples were collected in laboratory-supplied vials which were pre-preserved with hydrochloric acid (HCl).

Field sampling records for each well are presented in ***Appendix A***. The sample bottles were labeled with date, time, sample identification, analytical parameters, and the sampler's initials, and immediately placed on ice in a cooler. The cooler was maintained under chain-of-custody documentation until arrival at the laboratory.

The following quality assurance/quality control (QA/QC) samples were collected during this event:

- One field duplicate sample:

    P-10A (Duplicate 1) – a duplicate sample of P-10A

- One trip blank
- One matrix spike/matrix spike duplicate

Groundwater and QA/QC samples were analyzed for VOCs by USEPA Method SW-846 8260B for the Appendix IX list of compounds by Lancaster Laboratories of Lancaster, Pennsylvania. Analytical data were certified by a Puerto Rican chemist and validated in accordance with the USEPA Region II Standard Operating Procedure (SOP) HW-6 – CLP Organics Data Review and Preliminary Review. The data were found to be acceptable for use without significant qualification. The complete analytical data package is presented in ***Appendix B***.

3.3 SURFACE WATER AND PORE-WATER SAMPLING

Surface water and pore-water samples were collected from the Rio Grande de Patillas in three co-located locations (SW-01, SW-02, SW-03, PW-01, PW-02, PW-03) southwest of the Site. The surface water and pore-water sample collection locations are presented in ***Figure 2***.

The surface water samples were collected prior to pore-water sampling. The samples were collected directly from the river at mid-depth using a clean glass container (fetch bottle) and then transferred to a laboratory-supplied 40-ml vial for analysis.

The pore-water samples were collected using a stainless steel PushPoint sampler. The sampler was manually pushed into the river sediment until refusal (approximately 1 to 2 feet below the river bed). The sampling screen was then opened and flexible tubing was attached to the top of the sampler. The pore-water sample was then collected using a large syringe. Each sample was collected in a laboratory-supplied 40-ml vial for analysis.

The sample bottles were labeled with date, time, sample identification, analytical parameters, and the sampler's initials, and immediately placed on ice in a cooler. The cooler was maintained under chain-of-custody documentation until arrival at the laboratory.

Surface water and pore-water samples were analyzed for VOCs by USEPA Method SW846 8260B by Lancaster Laboratories. Analytical data were certified by a Puerto Rican chemist and validated by MWH in accordance with the USEPA Region II Standard Operating Procedure (SOP) HW-6 – CLP Organics Data Review and Preliminary Review. The data were found to be acceptable for use without significant qualification. The complete analytical data package is presented in ***Appendix B***.

4.0 GROUNDWATER MONITORING RESULTS

4.1 GROUNDWATER ELEVATIONS

The depth to groundwater measurements and groundwater elevations for August 2012 are presented in ***Table 1***. Groundwater is generally encountered 6 to 17 feet below ground surface, or 27 to 58 feet above mean sea level (amsl). Groundwater elevation contours for the shallow and deep aquifers are presented in ***Figure 3a*** and ***Figure 3b***, respectively. Based on these contours the groundwater flow direction is generally southwest, towards the Quebrada Mamey and the Rio Grande de Patillas. The groundwater flow direction observed during this monitoring event is consistent with previous monitoring events and historical records.

The horizontal hydraulic gradient for the shallow aquifer onsite is 0.022 vertical feet per horizontal foot (ft/ft). The horizontal hydraulic gradient for the deep aquifer offsite is 0.019 ft/ft. The vertical hydraulic gradient between these two aquifers is approximately 0.108 ft/ft downward onsite. The hydraulic gradients observed during this event are generally consistent with those observed during previous monitoring events.

4.2 GROUNDWATER SAMPLE RESULTS

Groundwater sample results are presented in ***Table 2*** with the detected sample results posted in ***Figure 4***. The results posted in ***Figure 4*** are for the compounds that are associated with historical operations and/or that are routinely detected during groundwater monitoring. The following table summarizes the results for the compounds that were detected during the August 2012 sampling event (17 investigative samples were collected). Concentrations are reported in micrograms per liter (µg/L).

Compound	Number of Detections	Lowest Detected Result (µg/L)	Highest Detected Result (µg/L)	MCL (µg/L)	# Detections Above MCL
1,1,1-Trichloroethane (1,1,1-TCA)	2	1.0 (estimated)	52	200	0
1,1,2-Trichloroethane (1,1,2-TCA)	0	NA	NA	5	NA
1,1-Dichloroethane (1,1-DCA)	3	2.0 (estimated)	11	2.4*	2
1,1-Dichloroethene (1,1-DCE)	10	1.0 (estimated)	170	7	5
1,2-Dichloroethane (1,2-DCA)	0	NA	NA	5	NA
Chloroform	4	2.0 (estimated)	3.0 (estimated)	80	0
Trichlorofluoromethane	0	NA	NA	1,100*	NA

* USEPA Risk-based Screening Level for tap water

As shown on the summary table, 1,1-DCA and 1,1-DCE were the only compounds exceeding their respective MCLs. The highest VOC concentrations (primarily 1,1-DCA and 1,1-DCE) were detected in the sample collected from well P-8, which is located onsite and downgradient of the former French Sump. The 1,1-DCE concentration for the farthest downgradient monitoring well sampled (P-20D, located approximately 1,300 feet southwest of the former French Sump) was 7 µg/L. The approximate extent of 1,1-DCE in groundwater (based on the recent sample results) is presented in ***Figures 5a and 5b***. As shown in these figures, 1,1-DCE in the shallow zone extends from the Site towards P-19S; for the deep zone, 1,1-DCE has been detected at low levels in P-20D. As noted previously, wells located farther downgradient (P-13S/D and P-14S/D, as shown on ***Figure 2***) could not be sampled because the property owner denied access to the wells. From 1991 through 1996, these wells did not contain VOCs at detectable levels.

The historical sample results for constituents of concern in groundwater within the alluvial/colluvial aquifer are presented in ***Table 3***. In general, the results obtained during the August 2012 monitoring event are consistent with the historical results. However, 1,1-DCE concentrations in the following wells appear to be decreasing over time: P-7A, P-9, P-10A, P-16S, P-17D, P-18S, P-18D, P-19D, and P-20D. Trend graphs for 1,1-DCE concentrations in selected monitoring wells are provided in ***Appendix C***.

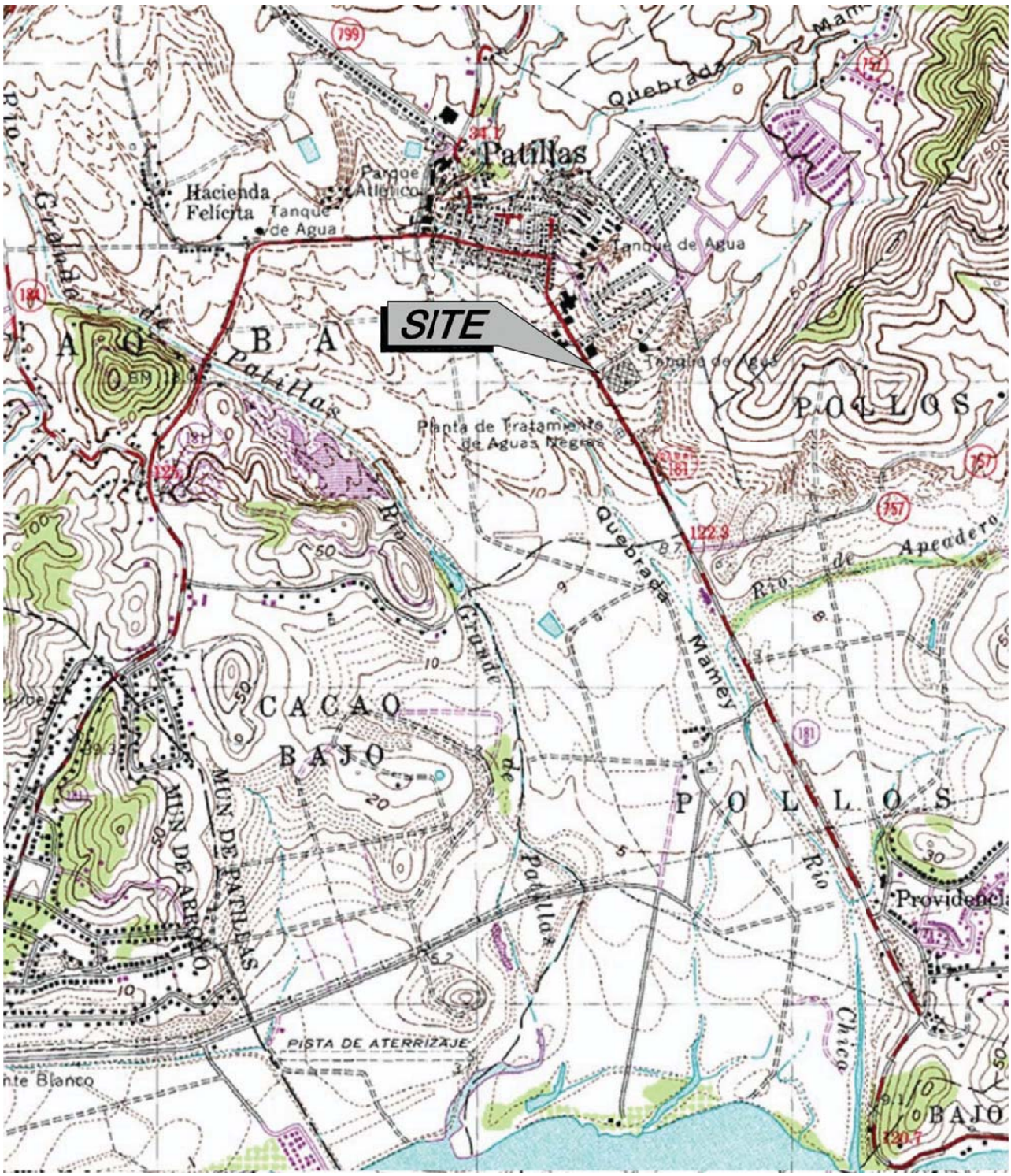
4.3 SURFACE WATER AND PORE-WATER SAMPLE RESULTS

Surface water and pore-water results are presented in ***Table 4*** with the detected sample results posted in ***Figure 6***. Chloroform was the only detected compound from the surface and pore-water sampling activities. The only detection was from pore-water sample PW-01 with an estimated chloroform concentration of 3.0 µg/L, which is below the MCL of 80 µg/L for chloroform.

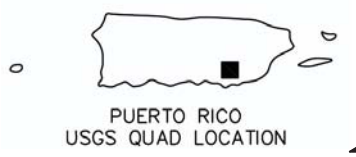
4.4 SAMPLE RESULTS SUMMARY

The 1,1-DCE groundwater impact appears to be limited to a narrow pathway southwest of the former sump. Additionally, the decreasing 1,1-DCE concentration trends appear to indicate some natural attenuation of this compound. Analytical results from the surface water and pore-water sampling do not indicate the presence of COCs in the Rio Grande de Patillas.

FIGURES



Source:
U.S.G.S. 7.5 minute quadrangle of Patillas, Puerto Rico, Dated 1977, photorevised 1982.



north

GE Puerto Rico Investment Inc.
Patillas, Puerto Rico

Site Location Map

Figure 1

MWH

Drawn By & Date: BRT, 6/5/09 | Approved By & Date: BRT | Revised By & Date: TLP 09/26/12 | Approved By & Date:

P-1
P-1A
P-2A
P-3
P-23
P-2
P-6
P-3A
P-5A
GE FACILITY
P-5
FORMER FRENCH SUMP
P-11
P-9
P-4
P-8
P-10A
P-7A
P-7
P-15DD
P-17D
P-18S
P-18D
P-16S
P-19S
P-19D
P-20S
P-20D
P-12
(MISSING)
RIO GRANDE DE PATILLAS
(no property access)
P-13S
P-13D
SW-01
PW-01
P-14S
P-14D
(no property access)
SW-02
PW-02
SW-03
PW-03

north
0 75 150 300
SCALE: FEET
1"=300'

LEGEND

- RIVER/STREAMS
- TREE COVER
- FENCE
- BUILDING
- MONITORING WELL
- SURFACE WATER AND PORE WATER SAMPLING LOCATION

GE Puerto Rico Investment, Inc.
Patillas, Puerto Rico

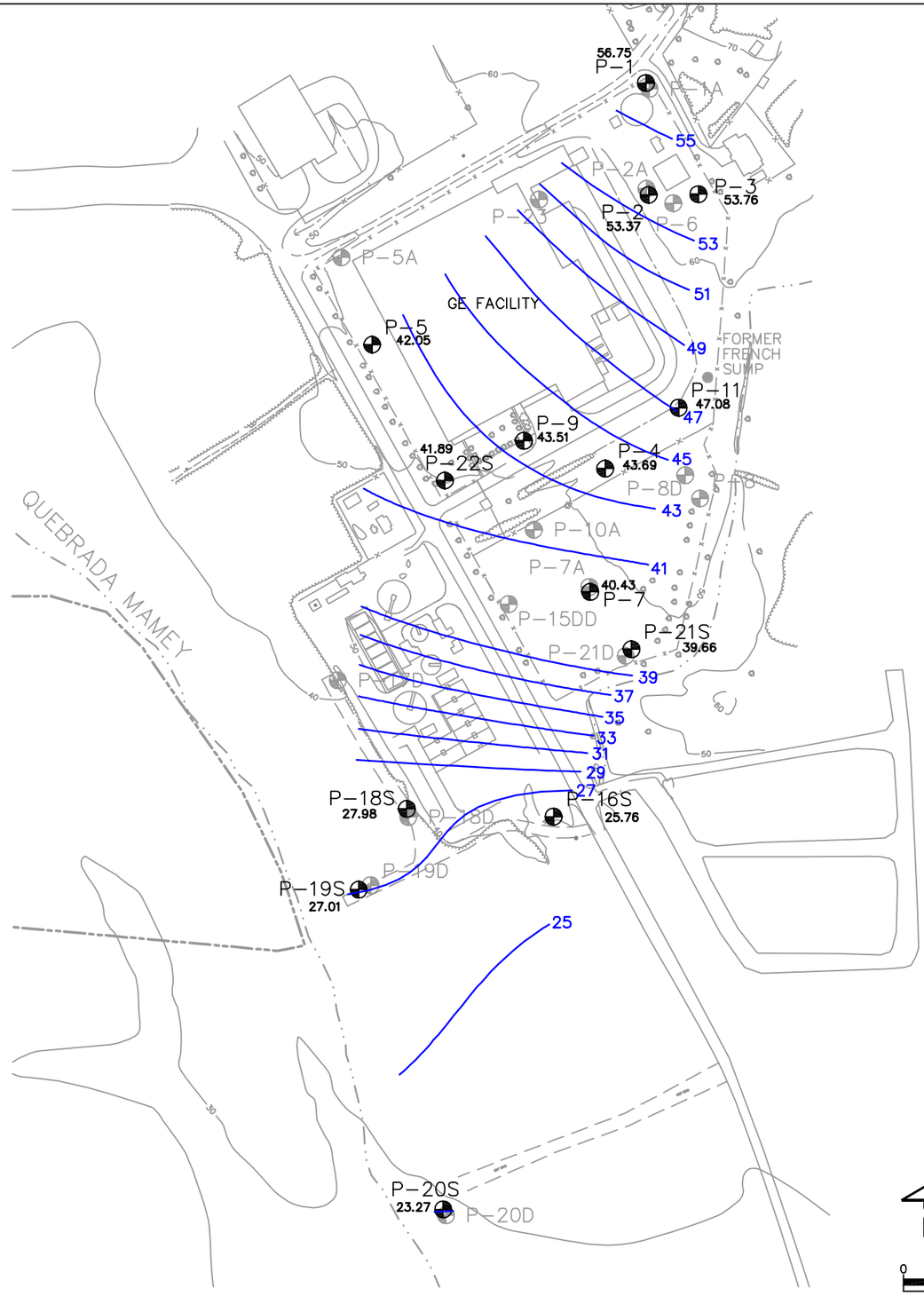
Site Map

FIGURE 2

MWH

J:\01a_400 General Electric Energy\72 - PATILLAS Puerto Rico\05 - CADD\CADD - NEW Basemap\Patillas Basemap 9-28-12.dwg Oct/11/12

Drawn By & Date: DM 7/15/09 | Approved By & Date: | Revised By & Date: TLP 09/27/12 | Approved By & Date:



LEGEND

- RIVER/STREAMS
- TREE COVER
- FENCE
- BUILDING
- MONITORING WELL (NOT USED FOR CONTOURING)
- MONITORING WELL
- 41 — EQUIPOTENTIAL CONTOUR, DASHED WHERE INFERRED
- 39.66 — WATER TABLE ELEVATION (FEET ABOVE SEA LEVEL)

NOTES:

1. CONTOUR INTERVAL = 2 FEET

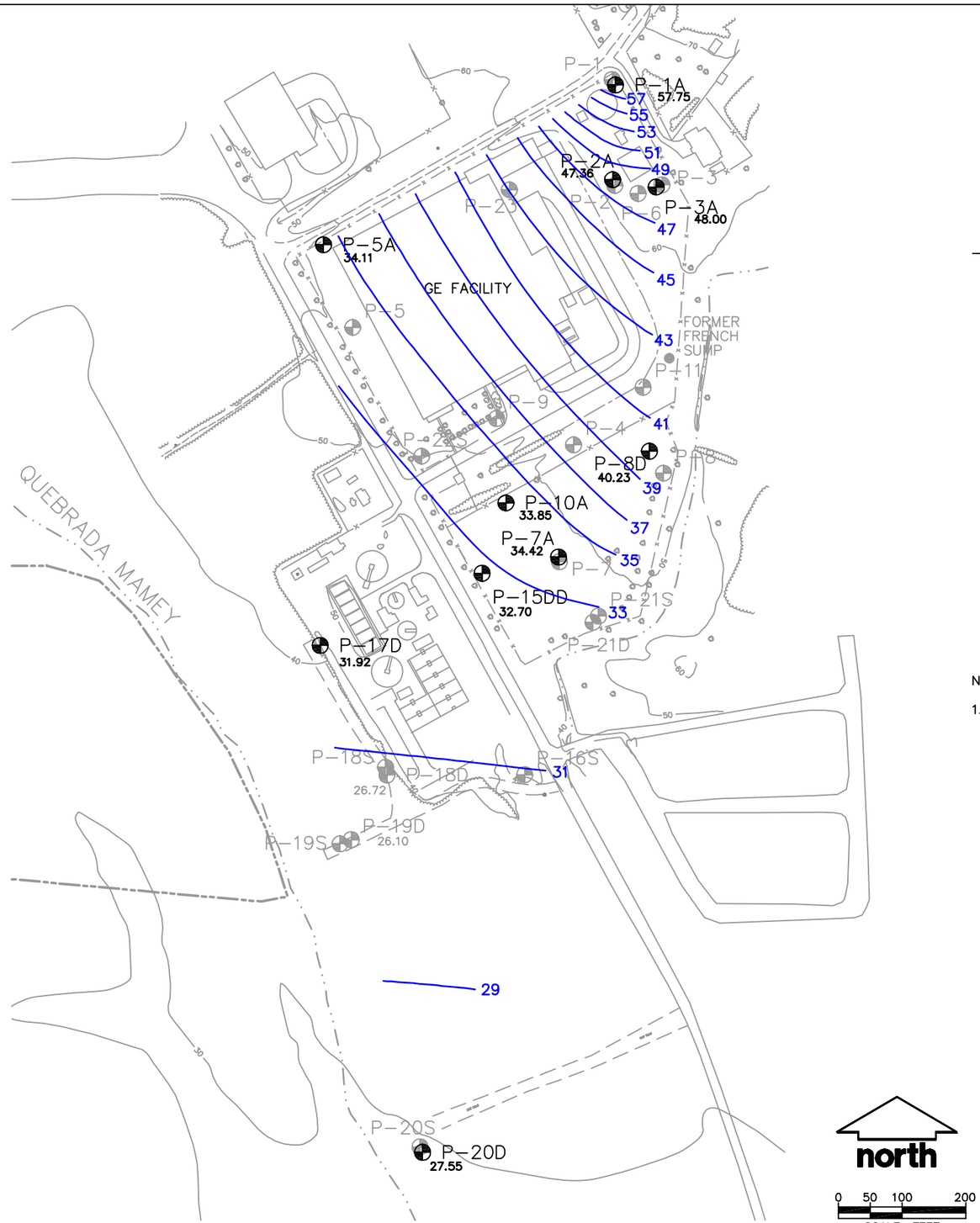
General Electric Puerto Rico Investment
Patillas, Puerto Rico

Shallow Groundwater Surface Map
August 2012

FIGURE 3a

MWH

J:\01c_400 General Electric Energy\72 - PATILLAS Puerto Rico\05 - CADD\2012 Vault and Sampling Activities\Patillas GW - Shallow - Aug 2012.dwg Oct/10/12



LEGEND

- RIVER/STREAMS
- TREE COVER
- FENCE
- BUILDING
- MONITORING WELL (NOT USED FOR CONTOURING)
- MONITORING WELL
- 33 — EQUIPOTENTIAL CONTOUR, DASHED WHERE INFERRED
- 32.70 — WATER TABLE ELEVATION (FEET ABOVE SEA LEVEL)

NOTES:

1. CONTOUR INTERVAL = 2 FEET

General Electric Puerto Rico Investment
Patillas, Puerto Rico

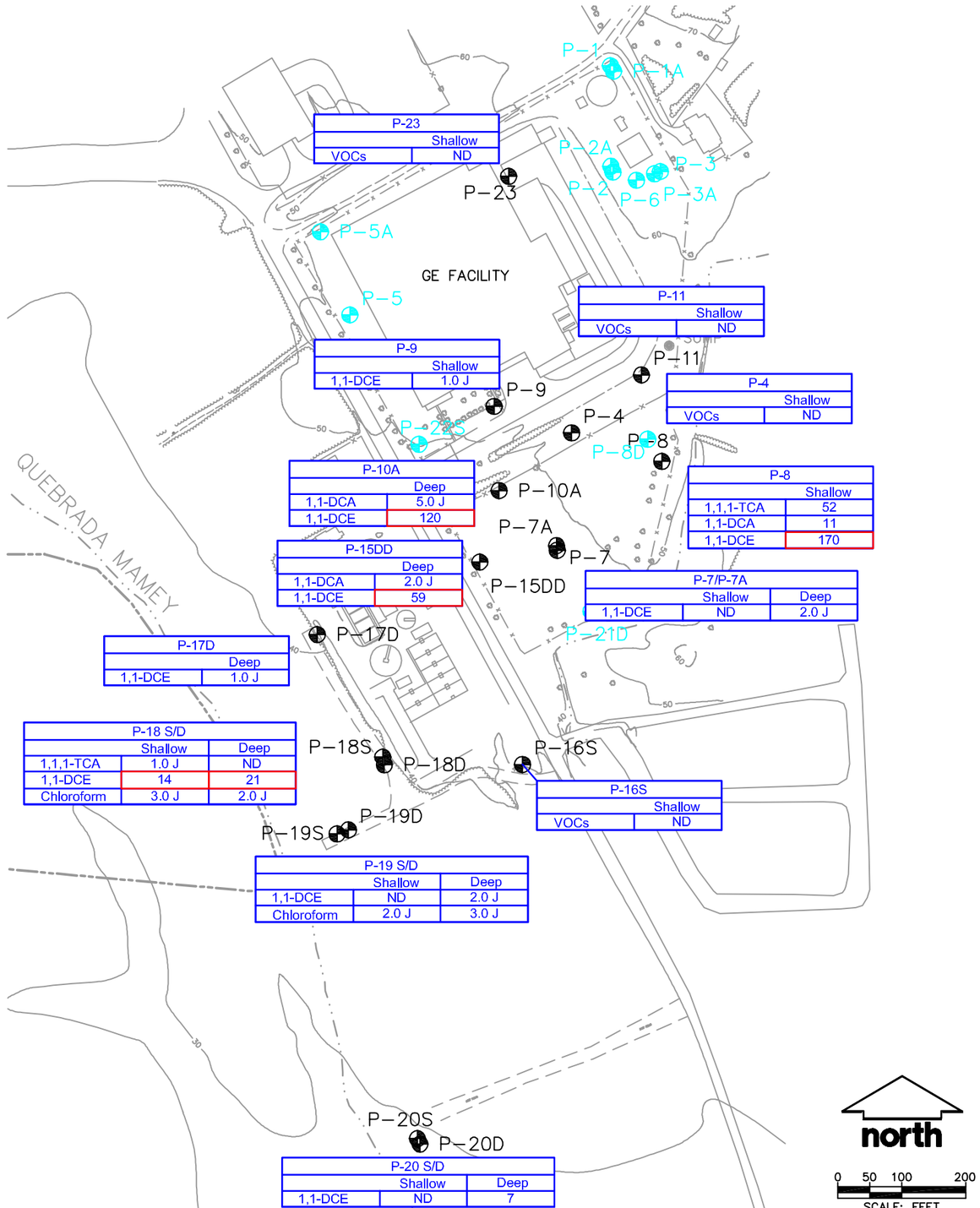
Deep Groundwater Surface Map
August 2012

FIGURE 3b

MWH

Drawn By & Date: DTM 7/15/09 | Approved By & Date: | Revised By & Date: TLP 09/26/12 | Approved By & Date:

J:\01a_400 General Electric Energy\72 - PATILLAS Puerto Rico\05 - CADD\2012 Vault and Sampling Activities\Patillas GW - Deep - Aug 2012.dwg Oct/10/12



LEGEND

- RIVER/STREAMS
- TREE COVER
- FENCE
- BUILDING
- MONITORING WELL (NOT SAMPLED)
- MONITORING WELL (SAMPLED)

NOTES:

Results are reported in micrograms per liter (ug/L).

Shallow – The well is screened in the upper portion of the alluvium/colluvium aquifer.
Deep – The well is screened in the lower portion of the alluvium/colluvium aquifer.

	Compound	MCL
1,1,1–TCA	1,1,1–Trichloroethane	200
1,1,2–TCA	1,1,2–Trichloroethane	5
1,1–DCA	1,1–Dichloroethane	NA
1,1–DCE	1,1–Dichloroethene	7
1,2–DCA	1,2–Dichloroethane	5
	Chloroform	80
TCFM	Trichlorofluoromethane	NA

Sample Results that exceed MCLs are boxed in RED.

General Electric Puerto Rico Investment
Patillas, Puerto Rico

Groundwater Sample Results
August 2012

FIGURE 4

MWH

Drawn By & Date: BRT 12/28/09 | Approved By & Date: BRT | Revised By & Date: TLP 09/25/12 | Approved By & Date: BRT

J:\01a 400 General Electric Enerav\72 – PATILLAS Puerto Rico\05 – CADD\2012 Vault and Samolino Activities\Patillas – VOC Results – Aug 2012.dwg Sec/28/12

Drawn By & Date: TLP 09/26/12 | Approved By & Date: | Revised By & Date: ATF 10/09/12 | Approved By & Date:

P-1
P-1A
P-2A
P-3
P-2
P-6
P-3A
P-23
P-5A
GE FACILITY
P-5
FORMER FRENCH SUMP
P-11
P-9
P-4
P-22S
P-8
P-8D
70
P-10A
ND
P-7A
P-7
P-15DD
P-21S
P-21D
P-17D
P-18S
P-18D
P-16S
7
ND
P-19D
P-19S
QUEBRADA MAMEY
P-20S
P-20D
P-12
(MISSING)

LEGEND

- RIVER/STREAMS
- TREE COVER
- FENCE
- BUILDING
- MONITORING WELL (NOT SAMPLED)
- MONITORING WELL (SAMPLED)
- ISOCONTOUR 1,1-DCE IN SHALLOW GROUNDWATER

north

0 50 100 200
SCALE: FEET
1"=200'

NOTES:

Concentrations are reported in micrograms per liter (ug/L).
Dashed where inferred.

Shallow – The well is screened in the upper portion of the alluvium/colluvium aquifer.
Deep – The well is screened in the lower portion of the alluvium/colluvium aquifer.

General Electric Puerto Rico Investment
Patillas, Puerto Rico

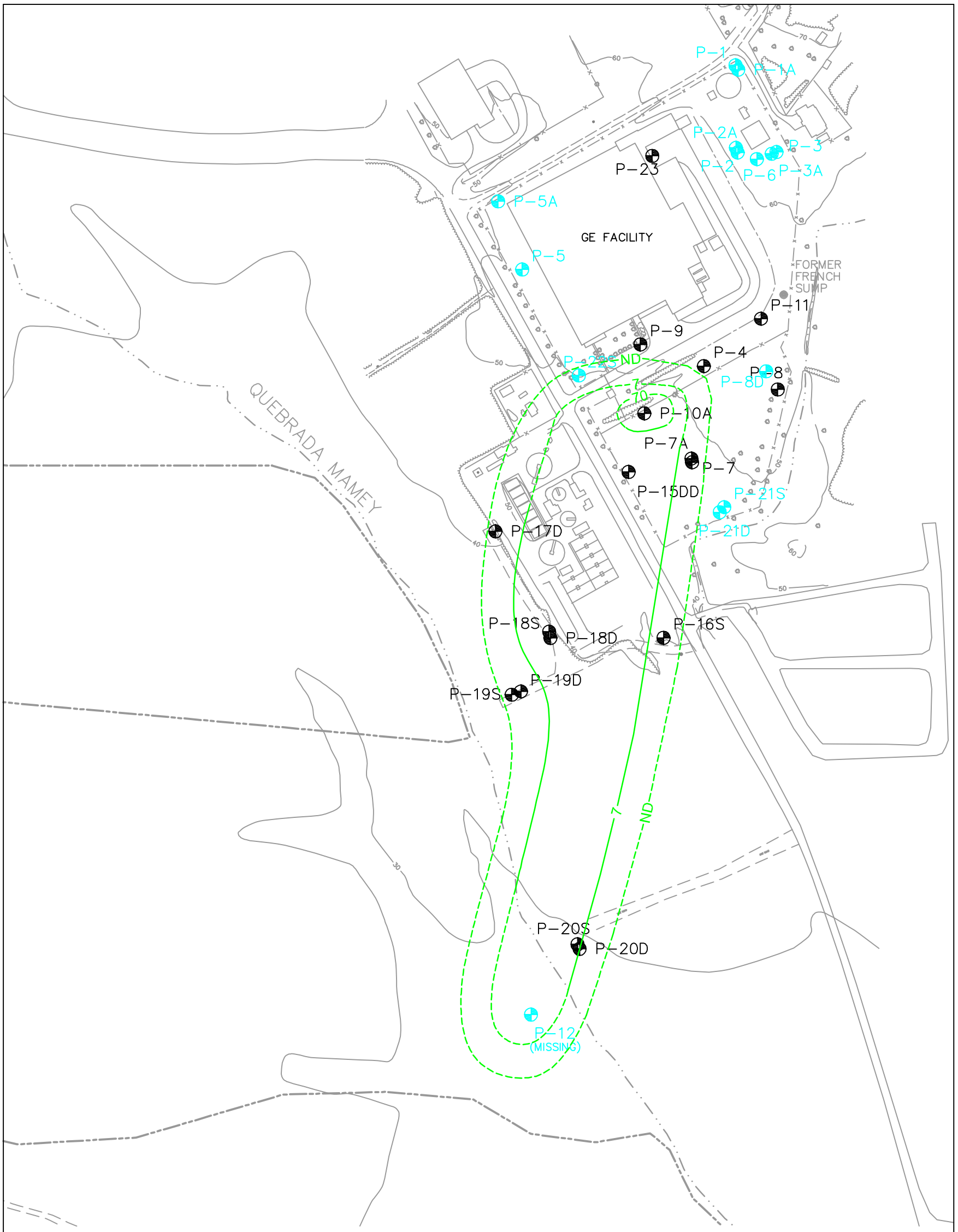
Extent of 1,1-DCE in Shallow Groundwater
August 2012

FIGURE 5a

MWH

J:\01a_400 General Electric Energy\72 - PATILLAS Puerto Rico\05 - CADD\2012 Vault and Sampling Activities\Patillas - VOC Results - Aug 2012.dwg Oct/30/12

Drawn By & Date: TLP 09/26/12 | Approved By & Date: | Revised By & Date: ATF 10/09/12 | Approved By & Date:



NOTES:

Concentrations are reported in micrograms per liter (ug/L).
Dashed where inferred.

Shallow – The well is screened in the upper portion of the alluvium/colluvium aquifer.
Deep – The well is screened in the lower portion of the alluvium/colluvium aquifer.

General Electric Puerto Rico Investment
Patillas, Puerto Rico

Extent of 1,1-DCE in Deep Groundwater
August 2012

FIGURE 5b

MWH

J:\01a_400 General Electric Energy\72 - PATILLAS Puerto Rico\05 - CADD\2012 Vault and Sampling Activities\Patillas - VOC Results - Aug 2012.dwg Oct/30/12

Drawn By & Date: BRT, 6/5/09 | Approved By & Date: BRT | Revised By & Date: ATF 10/11/12 | Approved By & Date:

P-1
P-1A
P-2A
P-3
P-23
P-2
P-6
P-3A
P-5A
GE FACILITY
P-5
FORMER FRENCH SUMP
P-11
P-9
P-4
P-8
P-10A
P-7A
P-7
P-15DD
P-17D
P-18S
P-18D
P-16S
P-19S
P-19D
P-20S
P-20D
P-12
(MISSING)
RIO GRANDE DE PATILLAS
(no property access)
P-13S
P-13D
SW-01
PW-01

SW/PW-01		
	Surface	Pore
Chloroform	ND	3.0 J

P-14S
P-14D
(no property access)

SW/PW-02		
	Surface	Pore
VOCs	ND	ND

SW-02
PW-02

SW/PW-03		
	Surface	Pore
VOCs	ND	ND

SW-03
PW-03

NOTES:

Results are reported in micrograms per liter (ug/L).

Surface – The sample was collected from surface water (SW-01, SW-02, SW-03).
Pore – The sample was collected from pore water (groundwater) (PW-01, PW-02, PW-03).

Compound	MCL
Chloroform	80

LEGEND

- RIVER/STREAMS
- TREE COVER
- FENCE
- BUILDING
- MONITORING WELL
- SURFACE WATER AND PORE WATER SAMPLING LOCATION

north

0 75 150 300

SCALE: FEET
1"=300'

GE Puerto Rico Investment, Inc.
Patillas, Puerto Rico

Surface and Pore Water Sample Results
August 2012

FIGURE 6

MWH

J:\01a_400 General Electric Energy\72 - PATILLAS Puerto Rico\05 - CADD\2012 Vault and Sampling Activities\Patillas - Figure 2 - Site Map.dwg Oct/11/12

TABLES

Table 1
Groundwater Elevation Data - August 2012
GE Puerto Rico Investment, Inc.
Patillas, Puerto Rico

Well No.	Aquifer Zone	Well Install Date	Boring Depth (ft bgs)	Land Surface Elevation (ft amsl)	Top Of Casing Elevation (ft amsl)	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)
P-1	Shallow	8/1/86	25.50	67.54	68.71	11.96	56.75
P-1A	Deep Saprolite	8/7/86	70.00	67.47	68.71	10.96	57.75
P-2	Shallow	8/1/86	20.50	61.85	63.60	10.23	53.37
P-2A	Deep	8/20/86	69.00	62.23	63.46	16.10	47.36
P-3	Shallow	8/4/86	25.50	63.54	64.58	10.82	53.76
P-3A	Deep	8/15/86	70.00	63.23	64.68	16.68	48.00
P-4	Shallow	7/29/86	19.11	51.25	52.92	9.23	43.69
P-4A	*Abandoned*	7/31/86	63.00	51.66	52.88	NG	NG
P-5	Shallow	8/4/86	20.50	52.29	53.90	11.85	42.05
P-5A	Deep Saprolite	9/15/86	70.00	51.14	52.51	18.40	34.11
P-6	Shallow	8/30/88	26.00	63.05	63.70	NG	NG
P-7	Shallow	2/3/89	18.15	47.64	49.73	9.30	40.43
P-7A	Deep Saprolite	2/2/89	58.20	47.80	49.67	15.25	34.42
P-8	Shallow	2/3/89	17.70	52.19	54.87	NG	NG
P-8D	Deep	9/17/10	45.60	53.27	55.34	15.11	40.23
P-9	Shallow	2/6/89	17.40	50.35	52.32	8.81	43.51
P-10A	Deep Alluvium/Sap	2/9/89	51.50	47.92	49.86	16.01	33.85
P-11	Shallow	2/8/89	13.20	52.95	54.68	7.60	47.08
P-12	Shallow	11/20/89	29.50	19.70	21.82	NG	NG
P-13D	Deep	6/28/91	62.74	20.40	22.10	NG	NG
P-13S	Shallow	7/5/91	28.70	19.59	23.25	NG	NG
P-14D	Deep	7/10/91	67.80	16.28	19.38	NG	NG
P-14S	Shallow	7/13/91	30.50	15.64	18.07	NG	NG
P-15DD	Bedrock	5/26/04	73.60	45.48	47.68	14.98	32.70
P-16S	Shallow	5/27/04	26.30	40.39	42.61	16.85	25.76
P-17D	Deep	6/1/04	61.00	38.26	41.02	9.10	31.92
P-18S	Shallow	5/28/04	16.60	36.55	39.08	11.10	27.98
P-18D	Deep	5/31/04	50.00	36.26	38.52	11.80	26.72
P-19S	Shallow	5/28/04	15.80	33.89	36.37	9.36	27.01
P-19D	Deep	6/30/04	36.50	34.32	36.45	10.35	26.10
P-20S	Shallow	5/4/06	26.00	31.70	34.67	11.40	23.27
P-20D	Deep	5/4/06	52.00	31.50	34.31	6.76	27.55
P-21S	Shallow	9/9/10	17.28	47.02	49.61	9.95	39.66
P-21D	Deep	9/14/10	45.80	46.34	48.38	NG	NG
P-22S	Shallow	9/10/10	17.26	49.64	52.24	10.35	41.89
P-23	Shallow	8/20/12	20.30	NS	NS	4.00	NS

Horizontal coordinates in Puerto Rico State Plane (feet, ft), Zone 1, NAD 27
bgs - Below Ground Surface
amsl - Above Mean Sea Level
btoc - Below Top of Casing
NG - Not Gauged (access to wells was denied by the property owner)
NS - Not Surveyed. New monitoring well.

Table 2
Groundwater Sample Results - August 2012
GE Puerto Rico Investment, Inc.
Patillas, Puerto Rico

	USEPA Tapwater RSL	USEPA MCL	P-4	P-7	P-7A	P-8	P-9	P-10A	P-11	P-15DD	P-16S	P-17D	P-18S	P-18D	P-19S	P-19D	P-20S	P-20D	P-23
Volatile Organic Compound (ug/L)																			
1,1,1,2-Tetrachloroethane	0.50	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	7,500	200	0.80 U	0.80 U	0.80 U	**52**	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	**1.0 J**	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,1,2,2-Tetrachloroethane	0.067	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.24	5	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,1-Dichloroethane	2.4	NS	1.0 U	1.0 U	1.0 U	**11**	1.0 U	**5.0 J**	1.0 U	**2.0 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	260	7	0.80 U	0.80 U	**2.0 J**	**170**	**1.0 J**	**120**	0.80 U	**59**	0.80 U	**1.0 J**	**14**	**21**	0.80 U	**2.0 J**	0.80 U	**7**	0.80 U
1,1-Dichloropropene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5.2	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichloropropane	0.00065	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	0.99	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	15	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.00032	0.2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane	0.0065	0.05	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	280	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.15	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	0.38	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	87	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	290	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	0.42	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Dichloropropane	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (MEK)	4,900	NS	**8.0 J**	**6.0 J**	**7.0 J**	3.0 U	3.0 U	**8.0 J**	**6.0 J**	**7.0 J**	**7.0 J**	**6.0 J**	**8.0 J**	**9.0 J**	**9.0 J**	**9.0 J**	**9.0 J**	**6.0 J**	**13**
2-Chlorotoluene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-pentanone (MIBK)	1,000	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Acetone	12,000	NS	**10 J**	**11 J**	**7.0 J**	6.0 U	6.0 U	**10 J**	**9.0 J**	**12 J**	**9.0 J**	**6.0 J**	**12 J**	**11 J**	**14 J**	**12 J**	**14 J**	**6.0 J**	**28**
Benzene	0.39	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromobenzene	54	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	83	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	0.12	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	7.9	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	7	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	0.39	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	72	100	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Chloroethane	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	0.19	80	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	**3.0 J**	**2.0 J**	**2.0 J**	**3.0 J**	0.80 U	0.80 U	0.80 U
Chloromethane	190	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	28	70	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
cis-1,3-Dichloropropene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	0.15	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	7.9	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	190	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.3	700	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Hexachlorobutadiene	0.26	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Isopropylbenzene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m+p-Xylene	190	NS	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Methyl Tertiary Butyl Ether	12	NS	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene Chloride	9.9	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Naphthalene	0.14	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
n-Butylbenzene	780	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Propylbenzene	530	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	190	NS	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
p-Isopropyltoluene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
sec-Butylbenzene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1,100	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	9.7	5	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Toluene	860	1,000	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
trans-1,2-Dichloroethene	86	100	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
trans-1,3-Dichloropropene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	0.44	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	1,100	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	0.015	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Concentrations are reported in micrograms per liter (ug/L)
USEPA Tapwater RSL = United States Environmental Protection Agency Tapwater Regional Screening Level - May 2012
MCL - Maximum Contaminant Level
Detections are bolded; results that exceed one or more comparison criteria are boxed.
U - The analyte was not detected above the indicated reporting limit.
J - Estimated.
NS - No standard screening level set

Table 3
Historical Groundwater Sample Results
GE Puerto Rico Investment, Inc.
Patillas, Puerto Rico

		Shallow Zone Monitoring Wells								Deep Zone Monitoring Wells							
		1,1,1-TCA		1,1-DCA		1,1-DCE					1,1,1-TCA		1,1-DCA		1,1-DCE		
	RSL or MCL*	200*		2.4		7.0*				RSL or MCL*	200*		2.4		7.0*		
P-4	Feb-89	1.0	U	1.0	U	1.0	U			***No associated deep well***							
	Jul-91	1.0	U	1.0	U	1.0	U										
	Aug-92	1.0	U	1.0	U	1.0	U										
	Nov-92	1.0	U	1.0	U	1.0	U										
	Feb-93	1.0	U	1.0	U	1.0	U										
	May-93	1.0	U	1.0	U	1.0	U										
	May-94	1.0	U	1.0	U	1.0	U										
	Jun-95	1.0	U	1.0	U	1.0	U										
	Jul-96	1.0	U	1.0	U	1.0	U										
	Oct-97	1.0	U	1.0	U	1.0	U										
	Nov-98	1.0	U	1.0	U	1.0	U										
	Dec-99	1.0	U	1.0	U	1.0	U										
	Jun-04	1.0	U	1.0	U	1.0	U										
	Jun-09	1.0	U	1.0	U	1.0	U										
	Sep-10	1.0	U	1.0	U	1.0	U										
	Aug-12	0.8	U	1.0	U	0.8	U										
P-5	Feb-89	1.0	U	1.0	U	1.0	U			**P-5A**	Feb-89	1.0	U	1.0	U	1.0	U
	Aug-92	1.0	U	1.0	U	1.0	U				Aug-92	1.0	U	1.0	U	1.0	U
	Nov-92	1.0	U	1.0	U	1.0	U				Nov-92	1.0	U	1.0	U	1.0	U
	Feb-93	1.0	U	1.0	U	1.0	U				Feb-93	1.0	U	1.0	U	1.0	U
	May-93	1.0	U	1.0	U	1.0	U				May-93	1.0	U	1.0	U	1.0	U
	May-94	1.0	U	1.0	U	1.0	U				May-94	1.0	U	1.0	U	1.0	U
	Jun-95	1.0	U	1.0	U	1.0	U				Jun-95	1.0	U	1.0	U	1.0	U
	Jul-96	1.0	U	1.0	U	1.0	U				Jul-96	1.0	U	1.0	U	1.0	U
	Oct-97	1.0	U	1.0	U	1.0	U				Oct-97	1.0	U	1.0	U	1.0	U
	Nov-98	1.0	U	1.0	U	1.0	U				Nov-98	1.0	U	1.0	U	1.0	U
	Dec-99	1.0	U	1.0	U	1.0	U				Dec-99	1.0	U	1.0	U	1.0	U
P-7	Feb-89	**20**		1.0	U	**31**				**P-7A**	Feb-89	1.0	U	-		**17**	
	Jul-91	**25**		**3.0**		**30**					Jul-91	**10**		**2.0**		**21**	
	Aug-92	**4.0**		1.0	U	1.0	U				Aug-92	-		-		-	
	Nov-92	1.0	U	1.0	U	1.0	U				Nov-92	**12**		**5.0**		**37**	
	Feb-93	1.0	U	1.0	U	1.0	U				Feb-93	**23**		**6.0**		**60**	
	May-93	1.0	U	1.0	U	**5.0**					May-93	**17**		**5.0**		**40**	
	Aug-93	1.0	U	1.0	U	1.0	U				Aug-93	**11**		1.0	U	**29**	
	Nov-93	**5.0**		1.0	U	**8.0**					Nov-93	**11**		**4.0**		**50**	
	Feb-94	**14**		1.0	U	**19**					Feb-94	**4.0**		**3.0**		**40**	
	May-94	**13**		1.0	U	**21**					May-94	1.0	U	**3.0**		**30**	
	Sep-94	**6.0**		1.0	U	**16**					Sep-94	1.0	U	1.0	U	**24**	
	Nov-94	1.0	U	1.0	U	**5.0**					Nov-94	1.0	U	1.0	U	**25**	
	Mar-95	1.0	U	1.0	U	**3.0**					Mar-95	**4.0**		1.0	U	**21**	
	Jun-95	1.0	U	1.0	U	**8.0**					Jun-95	**5.0**		**3.0**		**22**	
	Oct-95	1.0	U	1.0	U	**3.0**					Oct-95	**3.0**		1.0	U	**17**	
	Jan-96	1.0	U	1.0	U	**2.0**					Jan-96	**7.0**		**3.0**		**34**	
	Apr-96	1.0	U	1.0	U	**2.0**					Apr-96	**6.0**		**3.0**		**24**	
	Jul-96	1.0	U	1.0	U	1.0	U				Jul-96	**8.0**		**3.0**		**27**	
	Oct-96	1.0	U	1.0	U	1.0	U				Oct-96	**5.0**		**3.0**		**22**	
	Feb-97	**18**		1.0	U	**14**					Feb-97	**6.0**		1.0	U	**30**	
	Jun-97	**13**		1.0	U	**17**					Jun-97	**3.0**		**3.0**		**23**	
	Oct-97	1.0	U	1.0	U	**23**					Oct-97	**4.0**		1.0	U	**11**	
	Feb-98	1.0	U	1.0	U	1.0	U				Feb-98	1.0	U	1.0	U	**19**	
	Jun-98	1.0	U	1.0	U	1.0	U				Jun-98	1.0	U	1.0	U	**11**	
	Nov-98	1.0	U	1.0	U	1.0	U				Nov-98	1.0	U	1.0	U	**12**	
	May-99	1.0	U	1.0	U	1.0	U				May-99	1.0	U	1.0	U	**19**	
	Aug-99	1.0	U	1.0	U	1.0	U				Aug-99	1.0	U	1.0	U	**18**	
	Dec-99	1.0	U	1.0	U	1.0	U				Dec-99	1.0	U	1.0	U	**19**	
	Dec-00	1.0	U	1.0	U	1.0	U				Dec-00	1.0	U	1.0	U	**16**	
	Dec-01	1.0	U	1.0	U	1.0	U				Dec-01	1.0	U	1.0	U	**18**	
	Jun-04	1.0	U	1.0	U	1.0	U				Jun-04	**0.4**		**1.2**		**14**	
	Jun-09	1.0	U	**8.0**		**26**					Jun-09	1.0	U	1.0	U	**3.0**	J
	Sep-09	**11**		**13.0**		**51**					Sep-09	0.8	U	1.0	U	**3.0**	J
	Dec-09	**5.0**		**9.0**		**31**					Dec-09	0.8	U	1.0	U	**3.0**	J
	Mar-10	**7.0**		**7.0**		**22**					Mar-10	0.8	U	1.0	U	**1.0**	J
	Aug-10	**2.0**	J	**2.0**	J	**7.0**					Aug-10	0.8	U	1.0	U	**1.0**	J
	Dec-10	1.0	U	**0.32**	J	**1.0**					Dec-10	1.0	U	1.0	U	**0.81**	J
	Aug-12	0.8	U	1.00	U	0.8	U				Aug-12	0.8	U	1.0	U	**2.0**	J

Table 3
Historical Groundwater Sample Results
GE Puerto Rico Investment, Inc.
Patillas, Puerto Rico

		Shallow Zone Monitoring Wells								Deep Zone Monitoring Wells						
		1,1,1-TCA		1,1-DCA		1,1-DCE						1,1,1-TCA	1,1-DCA	1,1-DCE		
	RSL or MCL*	200*		2.4		7.0*					RSL or MCL*	200*	2.4	7.0*		
P-8	Feb-89	**9.0**		1.0	U	1.0	U			**P-8D**	Sep-10	**1.4**	**27**	**99**		
	Jul-91	1.0	U	1.0	U	1.0	U				Dec-10	**24**	**17**	**290**		
	Aug-92	1.0	U	1.0	U	1.0	U									
	Nov-92	1.0	U	1.0	U	1.0	U									
	Feb-93	1.0	U	1.0	U	1.0	U									
	May-93	1.0	U	1.0	U	1.0	U									
	May-94	1.0	U	1.0	U	1.0	U									
	Jun-95	1.0	U	1.0	U	1.0	U									
	Jul-96	1.0	U	1.0	U	1.0	U									
	Oct-97	1.0	U	1.0	U	1.0	U									
	Nov-98	**2410**		**128**		**1120**										
	May-99	**9.0**		1.0	U	**7.0**										
	Aug-99	1.0	U	1.0	U	1.0	U									
	Dec-99	**2040**		**198**		**2020**										
	Dec-00	1.0	U	1.0	U	1.0	U									
	Dec-01	1.0	U	1.0	U	1.0	U									
	Jun-04	**586**		**61**		**360**										
	Aug-12	**52**		**11**		**170**										
P-9	Feb-89	1.0	U	1.0	U	**22**				***No associated deep well***						
	Jul-91	1.0	U	**2.0**		**13**										
	Aug-92	1.0	U	1.0	U	**18**										
	Nov-92	1.0	U	**3.0**		**19**										
	Feb-93	1.0	U	1.0	U	**16**										
	May-93	1.0	U	1.0	U	**9**										
	Aug-93	1.0	U	1.0	U	**15**										
	Nov-93	**2.0**		**2.0**		**13**										
	Feb-94	1.0	U	1.0	U	**12**										
	May-94	1.0	U	1.0	U	**10**										
	Sep-94	1.0	U	1.0	U	**11**										
	Nov-94	1.0	U	1.0	U	**10**										
	Mar-95	1.0	U	1.0	U	**8.0**										
	Jun-95	1.0	U	1.0	U	**8.0**										
	Oct-95	1.0	U	1.0	U	**6.0**										
	Jan-96	1.0	U	1.0	U	**10**										
	Apr-96	1.0	U	1.0	U	**9.0**										
	Jul-96	1.0	U	1.0	U	**8.0**										
	Oct-96	1.0	U	1.0	U	**7.0**										
	Feb-97	1.0	U	1.0	U	**9.0**										
	Jun-97	1.0	U	1.0	U	**8.0**										
	Oct-97	1.0	U	1.0	U	**6.0**										
	Feb-98	1.0	U	1.0	U	1.0	U									
	Jun-98	1.0	U	1.0	U	**5.0**										
	Nov-98	1.0	U	1.0	U	**6.0**										
	May-99	1.0	U	1.0	U	**13**										
	Aug-99	1.0	U	1.0	U	**13**										
	Dec-99	1.0	U	1.0	U	**11**										
	Dec-00	1.0	U	1.0	U	**7.0**										
	Dec-01	1.0	U	1.0	U	1.0	U									
	Jun-04	1.0	U	**0.8**		**6.3**										
	Jun-09	1.0	U	1.0	U	**2.0**	J									
	Sep-10	1.0	U	**0.32**	J	**1.9**										
	Aug-12	0.8	U	1.00	U	**1.0**	J									

Table 3
Historical Groundwater Sample Results
GE Puerto Rico Investment, Inc.
Patillas, Puerto Rico

Shallow Zone Monitoring Wells

		1,1,1-TCA		1,1-DCA		1,1-DCE	
	RSL or MCL*	200*		2.4		7.0*	
P-10A							
No associated shallow well							

Deep Zone Monitoring Wells

		1,1,1-TCA		1,1-DCA		1,1-DCE	
	RSL or MCL*	200*		2.4		7.0*	
P-10A	Feb-89	**26**		**13**		**851**	
	Jul-91	1.0	U	**12**		**1740**	
	Aug-92	**15**		**17**		**1310**	
	Nov-92	**7.0**		**12**		**1310**	
	Feb-93	1.0	U	1.0	U	**1320**	
	May-93	1.0	U	1.0	U	**937**	
	Aug-93	1.0	U	1.0	U	**1180**	
	Nov-93	1.0	U	**17**		**1270**	
	Feb-94	**9.0**		**18**		**1900**	
	May-94	**7.0**		**16**		**1500**	
	Sep-94	1.0	U	1.0	U	**1260**	
	Nov-94	1.0	U	**13**		**1200**	
	Mar-95	1.0	U	1.0	U	**960**	
	Jun-95	1.0	U	**16**		**961**	
	Oct-95	1.0	U	**17**		**1110**	
	Jan-96	**4.0**		**13**		**1260**	
	Apr-96	**3.0**		**10**		**770**	
	Jul-96	**4.0**		**14**		**1100**	
	Oct-96	**3.0**		**18**		**924**	
	Feb-97	1.0	U	**11**		**707**	
	Jun-97	1.0	U	**10**		**601**	
	Oct-97	1.0	U	**12**		**800**	
	Feb-98	1.0	U	**11**		**702**	
	Jun-98	1.0	U	**11**		**667**	
	Nov-98	1.0	U	**11**		**580**	
	May-99	1.0	U	**17**		**857**	
	Aug-99	1.0	U	**23**		**742**	
	Dec-99	1.0	U	**23**		**1350**	
	Dec-00	**6.0**		**18**		**992**	
	Dec-01	**6.1**		**21**		**974**	
	Jun-04	**1.3**		**23**		**1230**	
	Jun-09	1.0	U	**21**		**770**	
	Sep-09	0.8	U	**18**		**760**	
	Dec-09	0.8	U	**21**		**900**	
	Mar-10	0.8	U	**17**		**630**	
	Aug-10	0.8	U	**17**		**660**	
	Sep-10	1.0	U	**19**		**910**	
	Dec-10	**2.0**	U	**8**		**200**	
	Aug-12	0.8	U	**5**	J	**120**	

P-11	Feb-89	**911**		1.0	U	**62**	
	Jul-91	**1180**		**20**		**409**	
	Aug-92	**139**		**11**		**26**	
	Nov-92	**20**		1.0	U	1.0	U
	Feb-93	**80**		**8.0**		**19**	
	May-93	**115**		**6.0**		**25**	
	Aug-93	**148**		**17**		**29**	
	Nov-93	**736**		**49**		**103**	
	Feb-94	**520**		**21**		**204**	
	May-94	**649**		1.0	U	**259**	
	Sep-94	**665**		**25**		**271**	
	Nov-94	**390**		**37**		**176**	
	Mar-95	**394**		**13**		**118**	
	Jun-95	**875**		**46**		**295**	
	Oct-95	**420**		**44**		**172**	
	Jan-96	**878**		**83**		**392**	
	Apr-96	**185**		**8.0**		**62**	
	Jul-96	**712**		**49**		**160**	
	Oct-96	**9120**		**173**		**2260**	
	Feb-97	**5850**		**65**		**1630**	
	Jun-97	**1220**		**26**		**611**	
	Oct-97	**1050**		**50**		**431**	
	Feb-98	**118**		**5.0**		**53**	
	Jun-98	**113**		1.0	U	**47**	
	Nov-98	**10**		1.0	U	1.0	U
	May-99	**17**		1.0	U	1.0	U
	Aug-99	**27**		**5.0**		**6.0**	
	Dec-99	1.0	U	1.0	U	1.0	U
	Dec-00	1.0	U	1.0	U	1.0	U
	Dec-01	1.0	U	1.0	U	1.0	U
	Jun-04	1.0	U	**1.1**		1.0	U
	Jun-09	1.0	U	**1.0**	J	**2.0**	J
	Sep-10	1.0	U	1.0	U	1.0	U
	Aug-12	0.8	U	1.0	U	0.8	U

No associated deep well

Table 3
Historical Groundwater Sample Results
GE Puerto Rico Investment, Inc.
Patillas, Puerto Rico

		Shallow Zone Monitoring Wells						Deep Zone Monitoring Wells					
		1,1,1-TCA		1,1-DCA		1,1-DCE		1,1,1-TCA		1,1-DCA		1,1-DCE	
	RSL or MCL*	200*		2.4		7.0*		RSL or MCL*	200*		2.4		7.0*	
P-12	Nov-89	**2.0**		1.0	U	**30**		***No associated deep well***					
	Jul-91	**3.0**		1.0	U	**25**							
	Aug-92	1.0	U	1.0	U	**8.0**							
	Nov-92	1.0	U	1.0	U	**5.0**							
	Feb-93	1.0	U	1.0	U	**5.0**							
	May-93	1.0	U	1.0	U	**20**							
	Aug-93	1.0	U	1.0	U	**17**							
	Nov-93	**3.0**		1.0	U	**27**							
	Feb-94	**2.0**		1.0	U	**30**							
	May-94	1.0	U	1.0	U	**20**							
	Sep-94	1.0	U	1.0	U	**18**							
	Nov-94	1.0	U	1.0	U	**6.0**							
	Mar-95	1.0	U	1.0	U	**12**							
	Jun-95	1.0	U	1.0	U	1.0	U						
	Oct-95	1.0	U	1.0	U	**4.0**							
	Jan-96	1.0	U	1.0	U	**6.0**							
	Apr-96	1.0	U	1.0	U	**5.0**							
	Jul-96	1.0	U	1.0	U	1.0	U						
P-13S	Jul-91	1.0	U	1.0	U	1.0	U	**P-13D**	Jul-91	1.0	U	1.0	U	1.0	U
	Aug-92	1.0	U	1.0	U	1.0	U		Aug-92	1.0	U	1.0	U	1.0	U
	Nov-92	1.0	U	1.0	U	1.0	U		Nov-92	1.0	U	1.0	U	1.0	U
	Feb-93	1.0	U	1.0	U	1.0	U		Feb-93	1.0	U	1.0	U	1.0	U
	May-93	1.0	U	1.0	U	1.0	U		May-93	1.0	U	1.0	U	1.0	U
	May-94	1.0	U	1.0	U	1.0	U		May-94	1.0	U	1.0	U	1.0	U
	Jun-95	1.0	U	1.0	U	1.0	U		Jun-95	1.0	U	1.0	U	1.0	U
	Jul-96	1.0	U	1.0	U	1.0	U		Jul-96	1.0	U	1.0	U	1.0	U
P-14S	Jul-91	1.0	U	1.0	U	1.0	U	**P-14D**	Jul-91	1.0	U	1.0	U	1.0	U
	Aug-92	1.0	U	1.0	U	1.0	U		Aug-92	1.0	U	1.0	U	1.0	U
	Nov-92	1.0	U	1.0	U	1.0	U		Nov-92	1.0	U	1.0	U	1.0	U
	Feb-93	1.0	U	1.0	U	1.0	U		Feb-93	1.0	U	1.0	U	1.0	U
	May-93	1.0	U	1.0	U	1.0	U		May-93	1.0	U	1.0	U	1.0	U
	May-94	1.0	U	1.0	U	1.0	U		May-94	1.0	U	1.0	U	1.0	U
	Jun-95	1.0	U	1.0	U	1.0	U		Jun-95	1.0	U	1.0	U	1.0	U
	Jul-96	1.0	U	1.0	U	1.0	U		Jul-96	1.0	U	1.0	U	1.0	U
P-15DD	***No associated shallow well***							**P-15DD**	Jun-04	**0.5**	J	**2.1**		**104**	
									Dec-05	0.8	U	**2.0**	J	**96**	
									May-06	0.8	U	**2.0**	J	**99**	
									Aug-06	0.8	U	**2.0**	J	**86**	
									Jun-09	0.8	U	**2.0**	J	**61**	
									Sep-09	0.8	U	**2.0**	J	**68**	
									Dec-09	0.8	U	**2.0**	J	**65**	
									Mar-10	0.8	U	**2.0**	J	**52**	
									Aug-10	0.8	U	**2.0**	J	**51**	
									Sep-10	**0.27**	J	**2.0**		**62**	
									Dec-10	**0.31**	J	**2.2**		**55**	
									Aug-12	0.80	U	**2.0**	J	**59**	
P-16S	Jun-04	**0.4**	J	**5.3**		**13**		***No associated deep well***					
	Dec-05	0.8	U	**4.0**	J	**17**							
	May-06	0.8	U	**3.0**	J	**11**							
	Aug-06	0.8	U	**2.0**	J	**9.0**							
	Jun-09	0.8	U	1.0	U	**4.0**	J						
	Sep-09	0.8	U	1.0	U	1.0	U						
	Dec-09	0.8	U	1.0	U	1.0	U						
	Mar-10	0.8	U	1.0	U	1.0	U						
	Aug-10	0.8	U	1.0	U	0.8	U						
	Dec-10	1.0	U	1.0	U	1.0	U						
	Aug-12	0.8	U	1.0	U	0.8	U						
P-17D	***No associated shallow well***							**P-17D**	Jun-04	1.0	U	**2.1**		**163**	
									Dec-05	0.8	U	**2.0**	J	**120**	
									May-06	0.8	U	**2.0**	J	**130**	
									Aug-06	0.8	U	**2.0**	J	**110**	
									Jun-09	0.8	U	**2.0**	J	**75**	
									Sep-09	0.8	U	**2.0**	J	**100**	
									Dec-09	0.8	U	**2.0**	J	**91**	
									Mar-10	0.8	U	**2.0**	J	**72**	
									Aug-10	0.8	U	**2.0**	J	**72**	
									Dec-10	1.0	U	**1.9**		**64**	
									Aug-12	0.8	U	1.0	U	**1.0**	J

Table 3
Historical Groundwater Sample Results
GE Puerto Rico Investment, Inc.
Patillas, Puerto Rico

		Shallow Zone Monitoring Wells							Deep Zone Monitoring Wells						
		1,1,1-TCA		1,1-DCA		1,1-DCE				1,1,1-TCA		1,1-DCA		1,1-DCE	
	RSL or MCL*	200*		2.4		7.0*			RSL or MCL*	200*		2.4		7.0*	
P-18S	Jun-04	**1.6**		**2.3**		**64**		**P-18D**	Jun-04	**1.2**		**2.1**		**65**	
	Dec-05	**1.0**	J	**1.0**	J	**26**			Dec-05	**1.0**	J	**1.0**	J	**38**	
	May-06	**1.0**	J	**2.0**	J	**39**			May-06	0.8	U	**2.0**	J	**53**	
	Aug-06	**0.9**	J	1.0	U	**20**			Aug-06	**1.0**	J	**2.0**	J	**53**	
	Jun-09	**0.8**	J	**1.0**		**17**			Jun-09	0.8	U	**1.0**	J	**31**	
	Sep-09	**1.0**	J	**1.0**	J	**20**			Sep-09	**0.8**	J	**1.0**		**37**	
	Dec-09	**1.0**	J	**2.0**	J	**30**			Dec-09	**1.0**	J	**2.0**	J	**38**	
	Mar-10	**1.0**	J	**2.0**	J	**27**			Mar-10	0.8	U	**2.0**	J	**33**	
	Aug-10	0.8	U	**1.0**	J	**13**			Aug-10	0.8	U	**2.0**	J	**24**	
	Sep-10	1.0	U	**0.57**	J	**5.8**			Sep-10	**0.39**	J	**1.3**		**23**	
	Dec-10	1.0	U	1.0	U	**0.51**	J		Dec-10	**0.34**	J	**1.3**		**20**	
	Aug-12	**1.0**	J	1.0	U	**14**			Aug-12	0.80	U	1.0	U	**21**	
P-19S	Jun-04	**0.4**	J	**0.3**	J	**5.4**		**P-19D**	Jun-04	**1.1**		**0.7**	J	**15**	
	Dec-05	0.8	U	1.0	U	**2.0**	J		Dec-05	0.8	U	1.0	U	**5.0**	
	May-06	0.8	U	1.0	U	**1.0**	J		May-06	0.8	U	1.0	U	**7.0**	
	Aug-06	0.8	U	1.0	U	0.8	U		Aug-06	**1.0**	J	1.0	U	**8.0**	
	Jun-09	0.8	U	1.0	U	0.8	U		Jun-09	0.8	U	1.0	U	**2.0**	J
	Sep-09	0.8	U	1.0	U	**2.0**	J		Sep-09	0.8	U	1.0	U	**4.0**	J
	Dec-09	0.8	U	1.0	U	**3.0**	J		Dec-09	0.8	U	1.0	U	**6.0**	J
	Mar-10	0.8	U	1.0	U	**3.0**	J		Mar-10	0.8	U	1.0	U	**6.0**	J
	Aug-10	0.8	U	1.0	U	0.8	U		Aug-10	0.8	U	1.0	U	**3.0**	J
	Dec-10	1.0	U	1.0	U	1.0	U		Dec-10	1.0	U	1.0	U	**1.2**	
	Aug-12	0.8	U	1.0	U	0.8	U		Aug-12	0.8	U	1.0	U	**2.0**	J
P-20S	May-06	0.8	U	1.0	U	0.8	U	**P-20D**	May-06	0.8	U	**1.0**	J	**37**	
	Aug-06	0.8	U	1.0	U	0.8	U		Aug-06	0.8	U	**1.0**	J	**44**	
	Jun-09	0.8	U	1.0	U	0.8	U		Jun-09	0.8	U	1.0	U	**24**	
	Sep-09	0.8	U	1.0	U	**7.0**			Sep-09	0.8	U	1.0	U	**28**	
	Dec-09	0.8	U	1.0	U	**5.0**	J		Dec-09	0.8	U	1.0	U	**22**	
	Mar-10	0.8	U	1.0	U	**8.0**	J		Mar-10	0.8	U	1.0	U	**22**	
	Aug-10	0.8	U	1.0	U	0.8	U		Aug-10	0.8	U	1.0	U	**20**	
	Sep-10	1.0	U	1.0	U	1.0	U		Sep-10	1.0	U	**0.74**	J	**23**	
	Dec-10	1.0	U	1.0	U	**0.67**	J		Dec-10	1.0	U	**0.58**	J	**14**	
	Aug-12	0.8	U	1.0	U	0.80	U		Aug-12	0.8	U	1.0	U	**7**	
P-21S	Sep-10	1.0	U	**0.57**	J	**2.0**		**P-21D**	Sep-10	1.0	U	1.0	U	1.0	U
	Dec-10	1.0	U	**0.39**	J	**0.80**	J		Dec-10	1.0	U	1.0	U	1.0	U
P-22S	Sep-10	1.0	U	**0.35**	J	**2.4**		***No associated deep well***							
	Dec-10	1.0	U	**0.26**	J	**1.5**									
P-23	Aug-12	0.8	U	1.0	U	0.8	U	***No associated deep well***							

Concentrations are reported in micrograms per liter (ug/L).

RSL - USEPA Regional Screening Level
*MCL - Maximum contaminant level
NA - Not available
1,1,1-TCA - 1,1,1-Trichoroethane
1,1-DCA - 1,1-Dichloroethane
1,1-DCE - 1,1-Dichloroethene
U - Non-Detect. The analyte was not detected above the indicated reporting limit.
J - Estimated. The analyte was detected below the reporting limit.
Results that exceed the RSL or MCLs are boxed.
September 2010 results obtained the during execution of the Phase II ESA.

Table 4
Surface Water and Pore-Water Sample Results - August 2012
GE Puerto Rico Investment, Inc.
Patillas, Puerto Rico

	USEPA Tapwater RSL	USEPA MCL	SW-01	PW-01	SW-02	PW-02	SW-03	PW-03
Volatile Organic Compound (ug/L)								
1,1,1,2-Tetrachloroethane	0.50	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	7,500	200	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,1,2,2-Tetrachloroethane	0.067	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	0.24	5	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,1-Dichloroethane	2.4	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	260	7	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
1,1-Dichloropropene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5.2	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichloropropane	0.00065	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	0.99	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	15	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.00032	0.2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane	0.0065	0.05	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	280	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.15	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	0.38	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	87	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	290	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	0.42	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2,2-Dichloropropane	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (MEK)	4,900	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
2-Chlorotoluene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-pentanone (MIBK)	1,000	NS	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Acetone	12,000	NS	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
Benzene	0.39	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromobenzene	54	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	83	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	0.12	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	7.9	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	7	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	0.39	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	72	100	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Chloroethane	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	0.19	80	0.80 U	**3.0 J**	0.80 U	0.80 U	0.80 U	0.80 U
Chloromethane	190	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	28	70	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
cis-1,3-Dichloropropene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	0.15	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromomethane	7.9	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	190	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.3	700	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Hexachlorobutadiene	0.26	NS	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Isopropylbenzene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m+p-Xylene	190	NS	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Methyl Tertiary Butyl Ether	12	NS	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene Chloride	9.9	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Naphthalene	0.14	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
n-Butylbenzene	780	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Propylbenzene	530	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	190	NS	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
p-Isopropyltoluene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
sec-Butylbenzene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1,100	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
tert-Butylbenzene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	9.7	5	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
Toluene	860	1,000	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U
trans-1,2-Dichloroethene	86	100	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U	0.80 U
trans-1,3-Dichloropropene	NS	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	0.44	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	1,100	NS	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	0.015	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Concentrations are reported in micrograms per liter (ug/L)
USEPA Tapwater RSL = United States Environmental Protection Agency Tapwater Regional Screening Level - May 2012
MCL - Maximum Contaminant Level
Detections are bolded; results that exceed one or more comparison criteria are boxed.
U - The analyte was not detected above the indicated reporting limit.
J - Estimated.
NS - No standard screening level set

APPENDIX A

GROUNDWATER SAMPLING LOGS

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.: P-23

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/20/2012 130PM
Felix Ocasio	Weather: Sunny
Depth to Water (btoc): 4FT	Well Condition: New well.
Total Well Depth (btoc): 20FT	
Sampling Interval(s) (btoc): 18ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1045am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-23 1045am	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.: P-11

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 0947 AM
Felix Ocasio	Weather: Rainy
Depth to Water (btoc): 7.60FT	Well Condition: Need well lock.
Total Well Depth (btoc): 15.20FT	
Sampling Interval(s) (btoc): 9.70ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1050am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-11 1050am	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.: P-4

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/20/2012 0940AM
Felix Ocasio	Weather: Rainy
Depth to Water (btoc): 9.23FT	Well Condition: casing steel cap corroded, need well lock.
Total Well Depth (btoc): 21FT	
Sampling Interval(s) (btoc): 15.80ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1100am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-4 1100am	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.:___P-9___

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1000AM
Felix Ocasio	Weather: Sunny
Depth to Water (btoc): 4FT	Well Condition: bended steel casing, need lock.
Total Well Depth (btoc): 20FT	
Sampling Interval(s) (btoc): 18ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1110am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-9 1110am	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.:___P-10A___

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1008AM
Felix Ocasio	Weather: Cloudy
Depth to Water (btoc): 16.01FT	Well Condition: submersible pump in hole.
Total Well Depth (btoc): 50.90FT (see note)	Need new lock.
Sampling Interval(s) (btoc): 44.80ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1126am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-10A 1126am	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a
8260B	3 (40ml) vials	HCL	1	n/a	n/a

Notes: ID for Duplicate 1223pm. This well has a grunfus pump stuck on hole. Actual depth is 39.25 ft. PDB interval is set at 38 feet.

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH	WELL I.D.: P-8D
Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/20/2012 140PM
Felix Ocasio	Weather: Rainy
Depth to Water (btoc): 15.11 FT	Well Condition: Need new lock.
Total Well Depth (btoc): 40FT	Bended in first 5 to 8 ft.
Sampling Interval(s) (btoc): ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1045am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-8 1138am	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.: P-15DD

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1045AM
Felix Ocasio	Weather: Rainy
Depth to Water (btoc): 14.98FT	Well Condition: Need new lock.
Total Well Depth (btoc): 75.80FT	
Sampling Interval(s) (btoc): 71.80ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 12md
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-15DD 1200md	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.:___P-7___

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1015AM
Felix Ocasio	Weather: Rainy
Depth to Water (btoc): 9.30FT	Well Condition: need new loc k.
Total Well Depth (btoc): 18.70FT	
Sampling Interval(s) (btoc): 14.30ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1045am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-7 1145am	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.:___P-7A___

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1020AM
Felix Ocasio	Weather: Sunny
Depth to Water (btoc): 15.25FT	Well Condition: well without lock.
Total Well Depth (btoc): 57.80FT	
Sampling Interval(s) (btoc): 54.50ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1150am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-7A 1150am	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.: P-16S

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1105AM
Felix Ocasio	Weather: Cloudy
Depth to Water (btoc): 16.85FT	Well Condition: Need new lock.
Total Well Depth (btoc): 26.30FT	
Sampling Interval(s) (btoc): 23.80ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1045am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-16S 1234pm	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a
8260B	3 (40ml) vials	HCL	n/a	1	n/a

Notes: ms/msd collected from P-16S.

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH	WELL I.D.: P-19D
Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1140AM
Felix Ocasio	Weather: Sunny
Depth to Water (btoc): 10.35FT	Well Condition: need new lock.
Total Well Depth (btoc): 38.30FT	
Sampling Interval(s) (btoc): 32.00ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1045am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-19D 1256pm	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.: P-19S

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1145am
Felix Ocasio	Weather: Sunny
Depth to Water (btoc): 9.36FT	Well Condition: need new lock.
Total Well Depth (btoc): 18.70FT	
Sampling Interval(s) (btoc): 12.50ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1300pm
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-16S 1300pm	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.:___P-17D___

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1135AM
Felix Ocasio	Weather: Sunny
Depth to Water (btoc): 9.10FT	Well Condition: need new lock.
Total Well Depth (btoc): 63.50FT	
Sampling Interval(s) (btoc): 51.10ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1310pm
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-17D 1310pm	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.: P-18S

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1215PM
Felix Ocasio	Weather: Cloudy
Depth to Water (btoc): 11.10FT	Well Condition: needs new lock.
Total Well Depth (btoc): 19.10FT	Needs new bollards.
Sampling Interval(s) (btoc): 13.50ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1315pm
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-18S 1315pm	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH	WELL I.D.: P-18D
Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1210PM
Felix Ocasio	Weather: Sunny
Depth to Water (btoc): 11.80FT	Well Condition: Needs new lock.
Total Well Depth (btoc): 47.90FT	
Sampling Interval(s) (btoc): 39.00ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1323pm
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-18D 1323pm	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH

WELL I.D.: P-20S

Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/08/2012 1235PM
Felix Ocasio	Weather: Sunny
Depth to Water (btoc): 11.40FT	Well Condition: needs new lock.
Total Well Depth (btoc): 25.00FT	
Sampling Interval(s) (btoc): 18.10ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1330pm
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-20S 1330pm	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

Groundwater Sample Record Sheet

Passive Diffusion Bag Sampler

MWH	WELL I.D.: P-20D
Project: Former GE Patillas, Patillas, P.R.	
Job No:10501055.010103	
Location: Patillas	
PDB Sampler Deployment	
Field Staff: Omar Negron, P.G.	Date & Time: 08/20/2012 130PM
Felix Ocasio	Weather: Sunny
Depth to Water (btoc): 4FT	Well Condition: New well.
Total Well Depth (btoc): 20FT	
Sampling Interval(s) (btoc): 18ft	
PDB Sampler Recovery	
Field Staff: Omar Negron, P.G.	Date & Time: 08/27/12 1045am
Felix Ocasio	Weather: Sunny
Sample ID & Time: P-20D 1335pm	Sample Condition: clear

Analyses	No. Bottles	Preservative	Duplicate	MS/MSD	Blank
8260B	3 (40ml) vials	HCL	n/a	n/a	n/a

Notes:

APPENDIX B

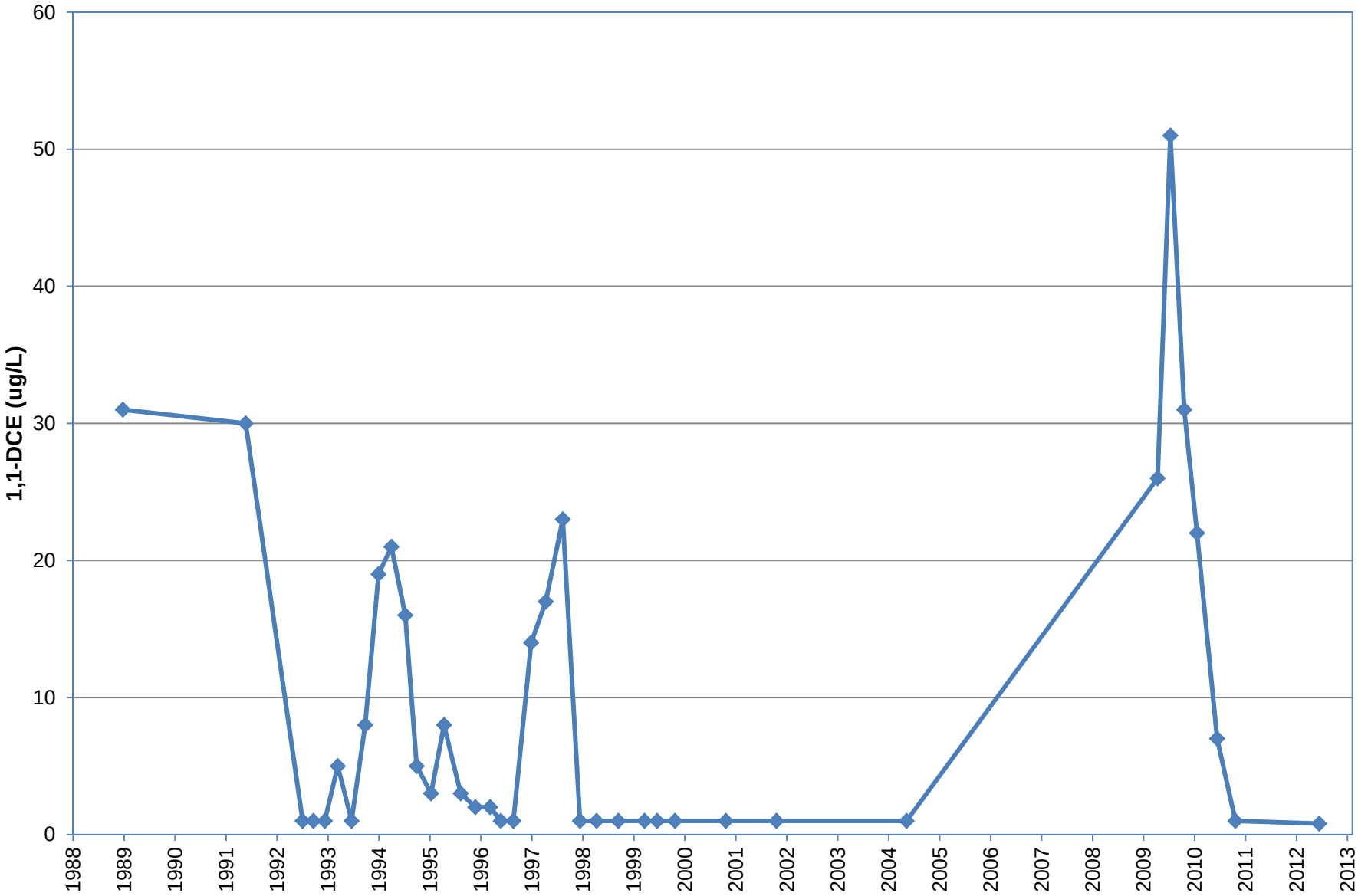
LABORATORY ANALYTICAL DATA

(INCLUDED ON CD)

APPENDIX C

1,1-DCE TREND GRAPHS

P-7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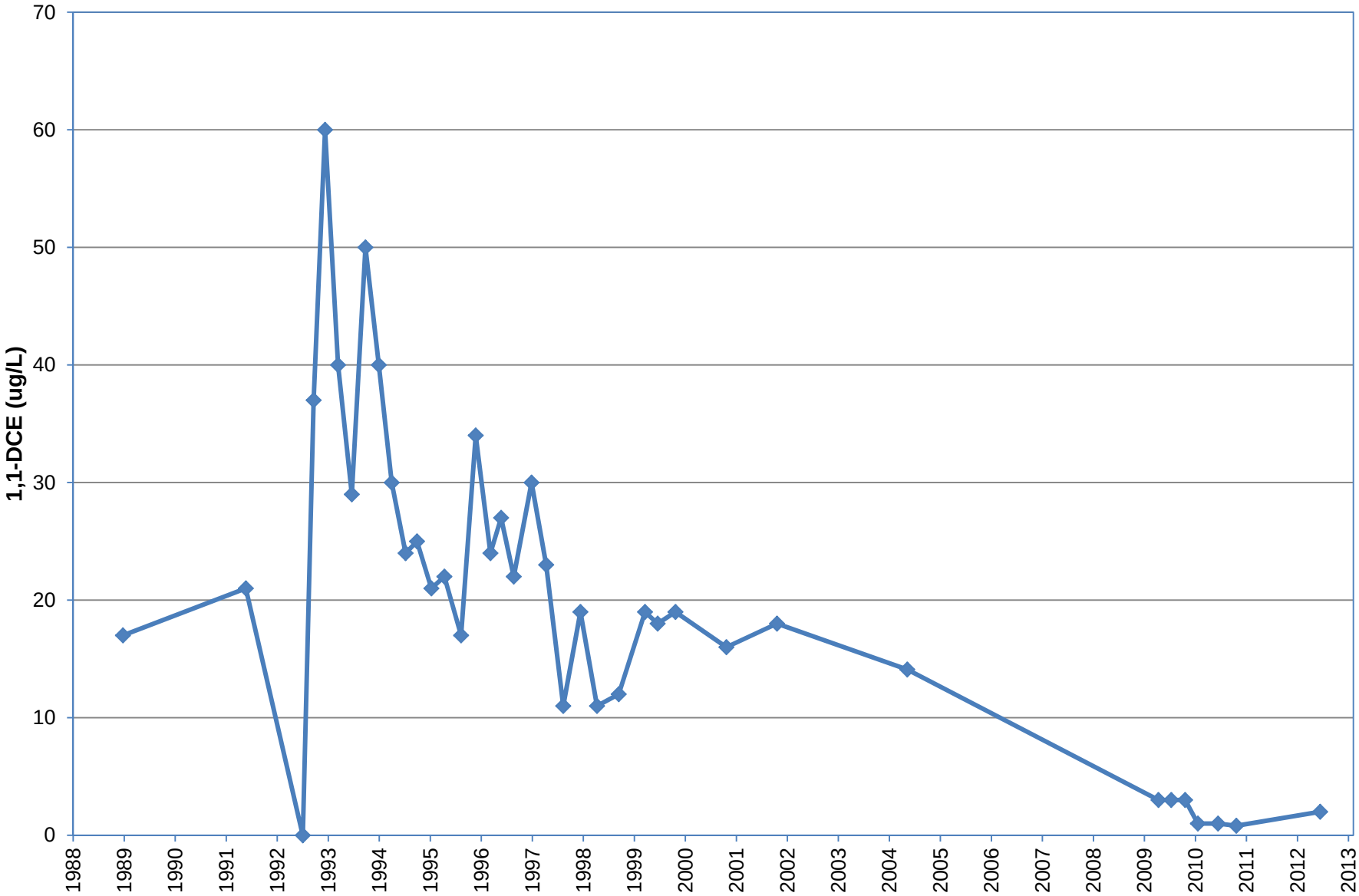
P-7A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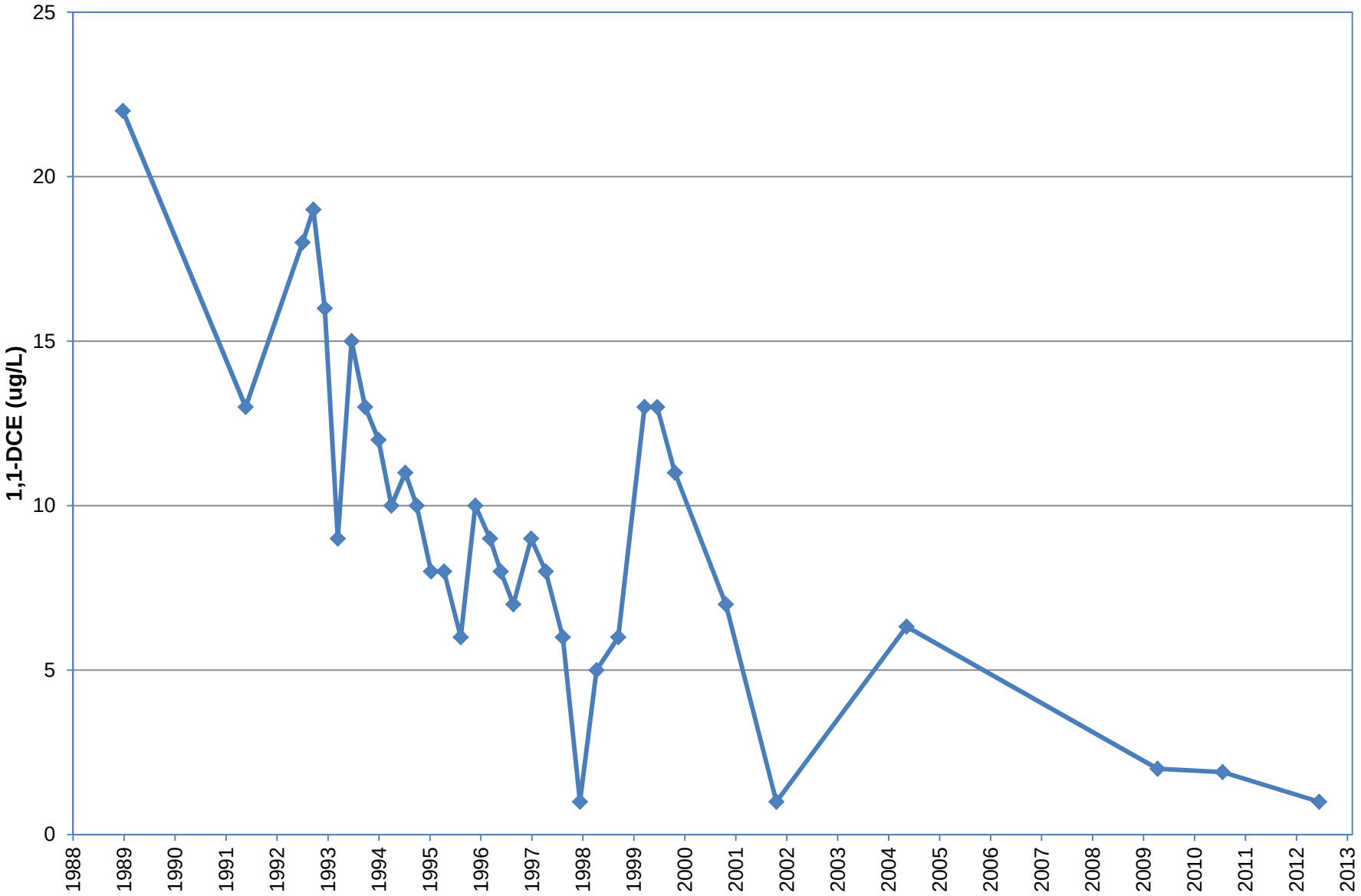
P-9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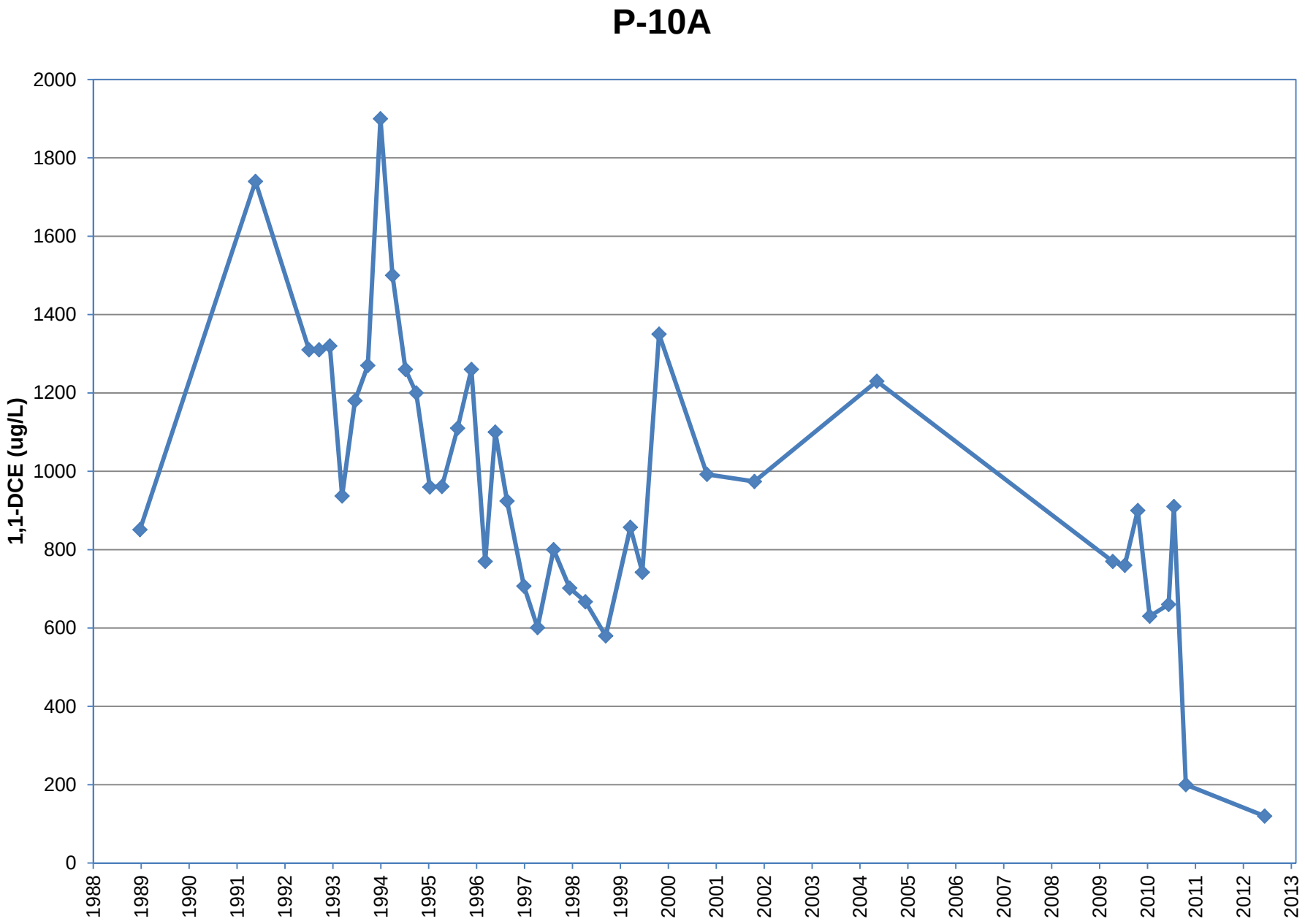
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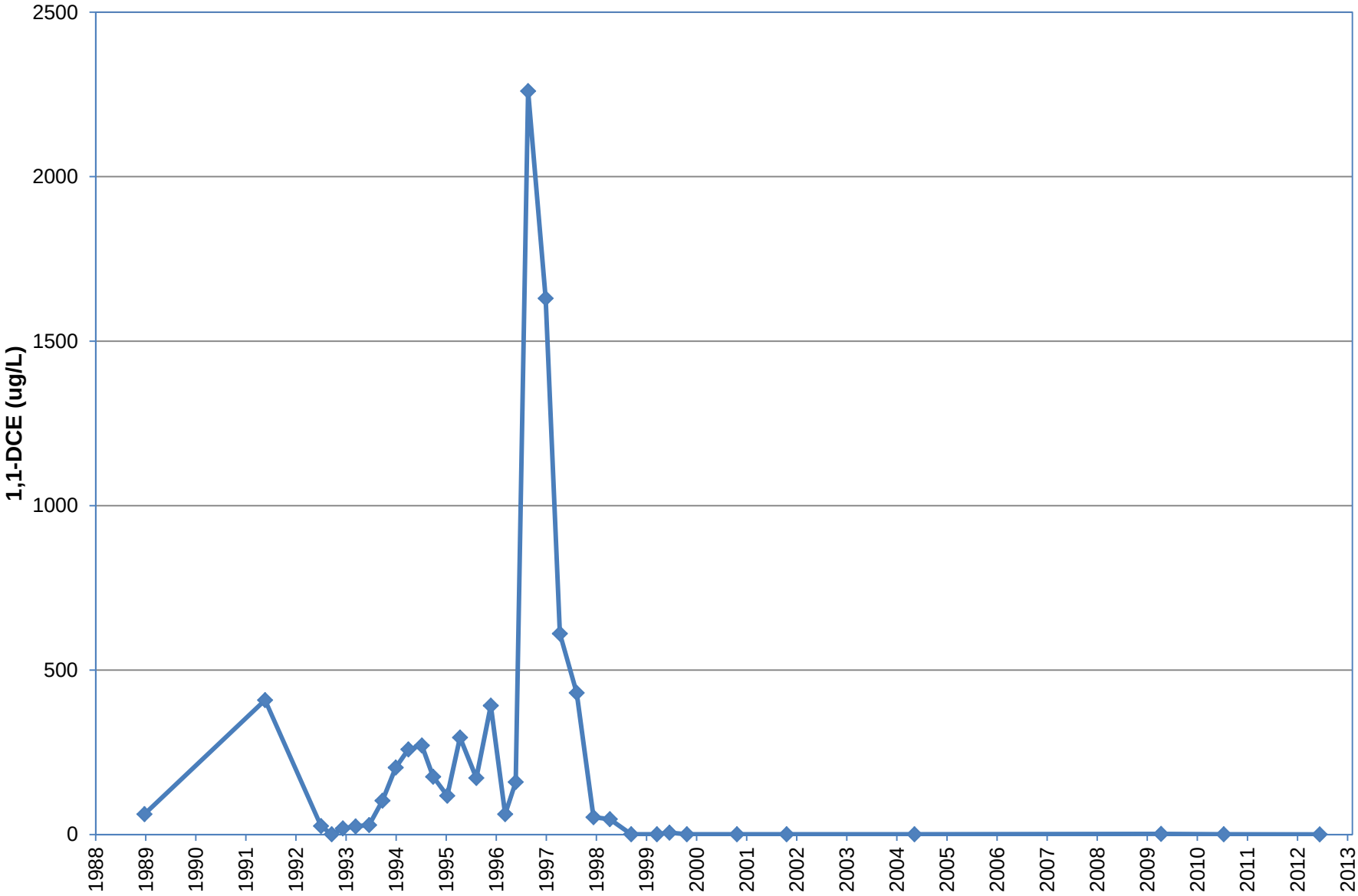
P-11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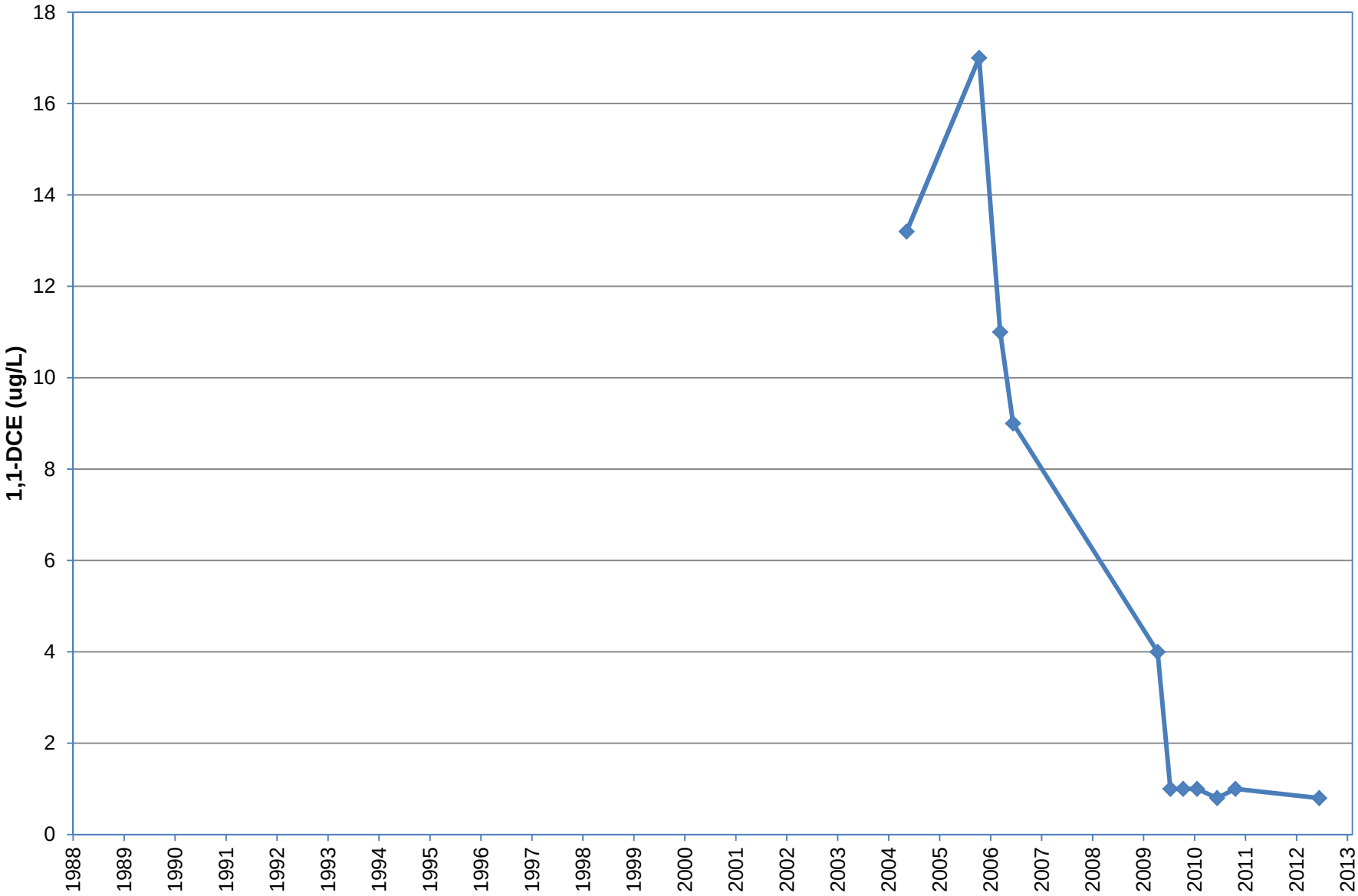
P-16S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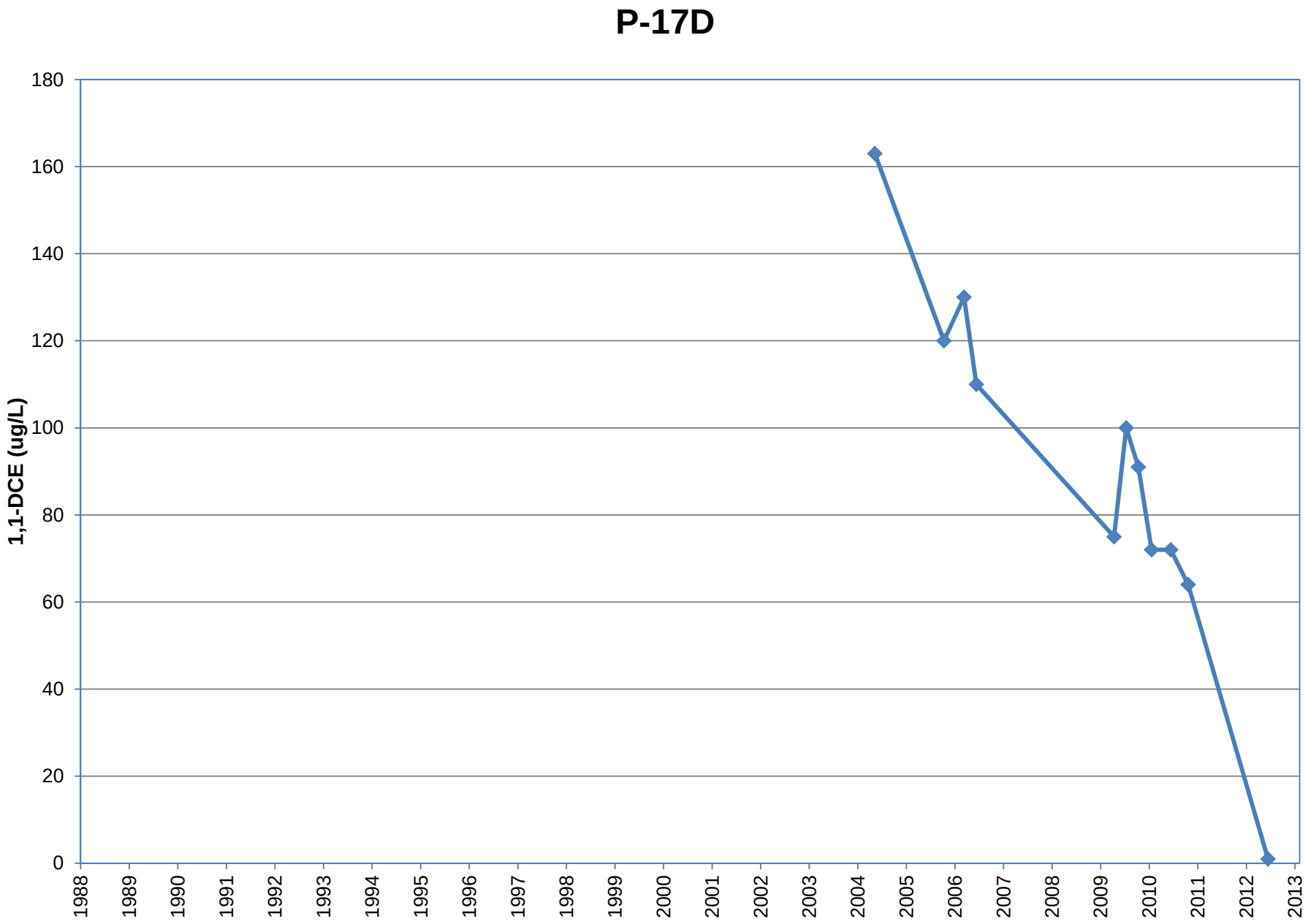
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1,1-DCE (ug/L)
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140
120
100
80
60
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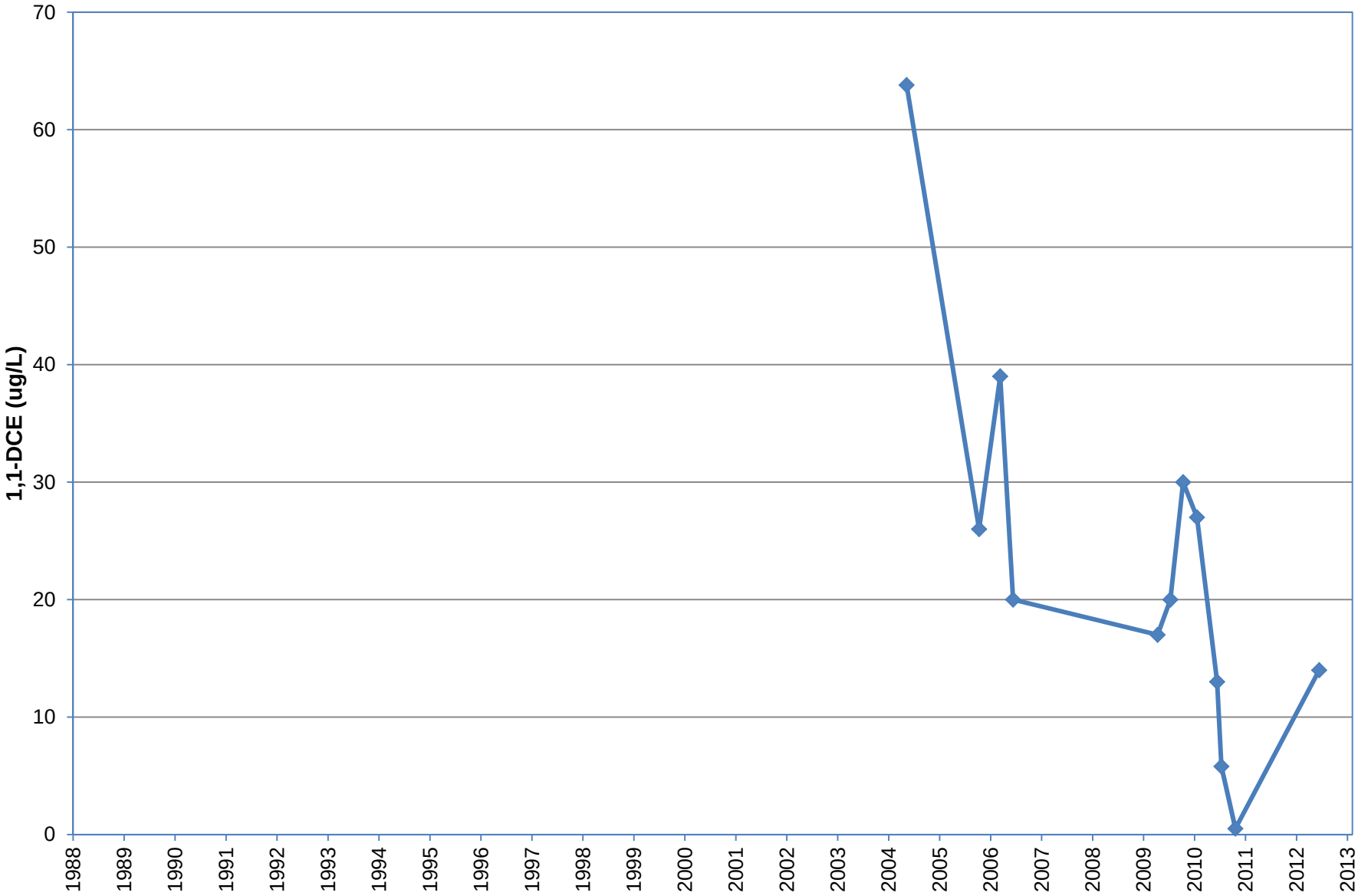
P-18S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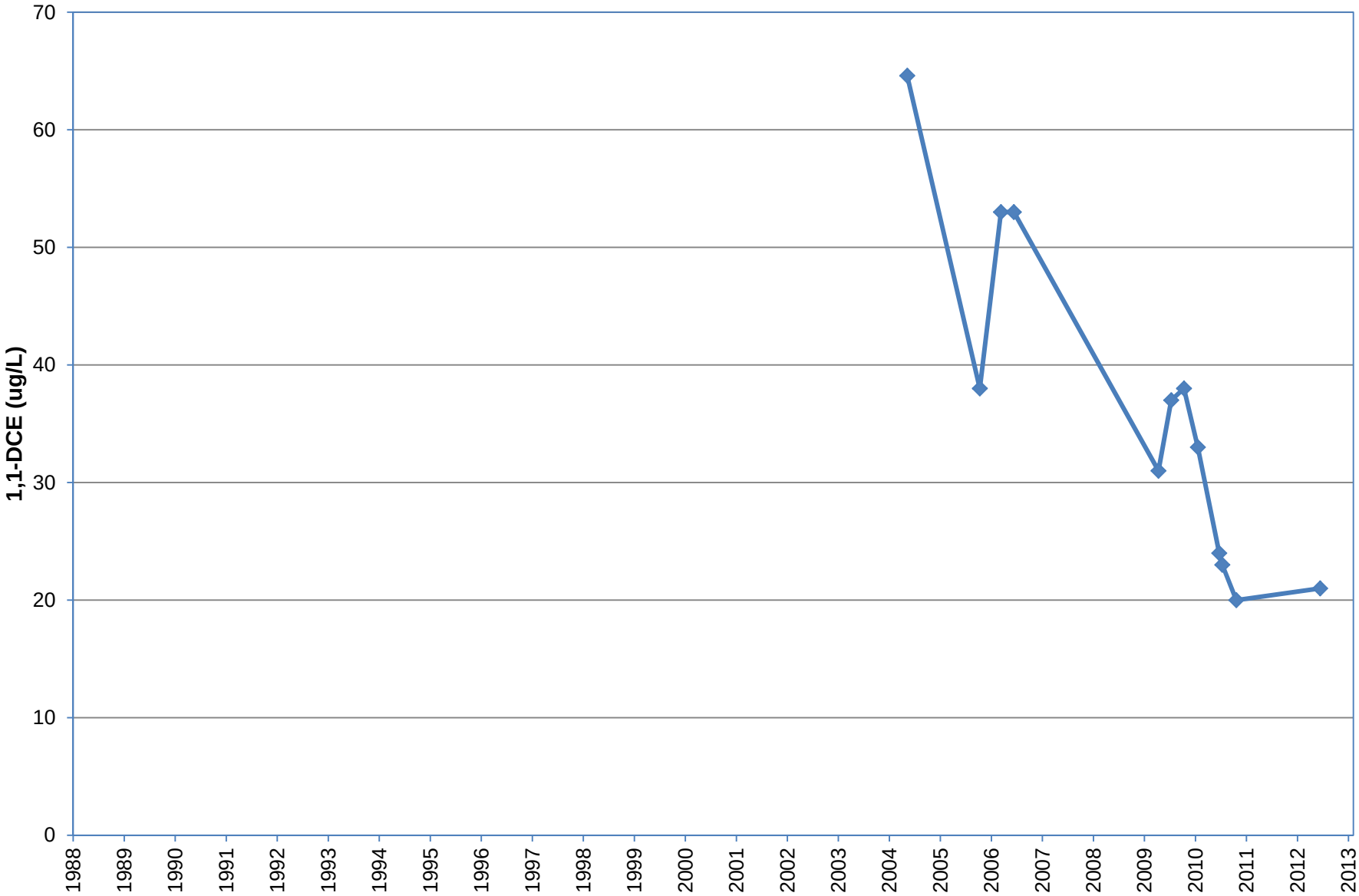
P-18D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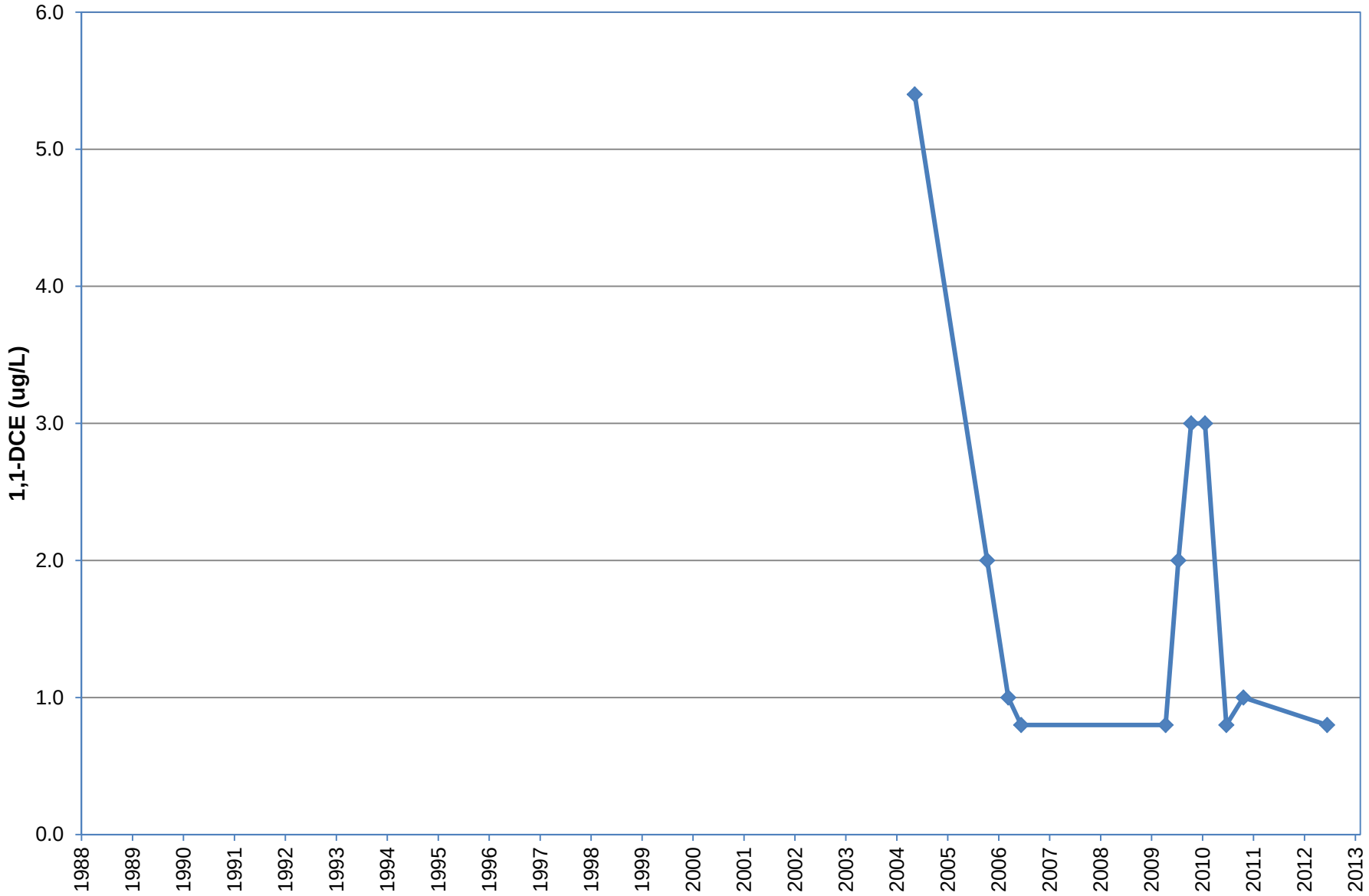
P-19S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0.0
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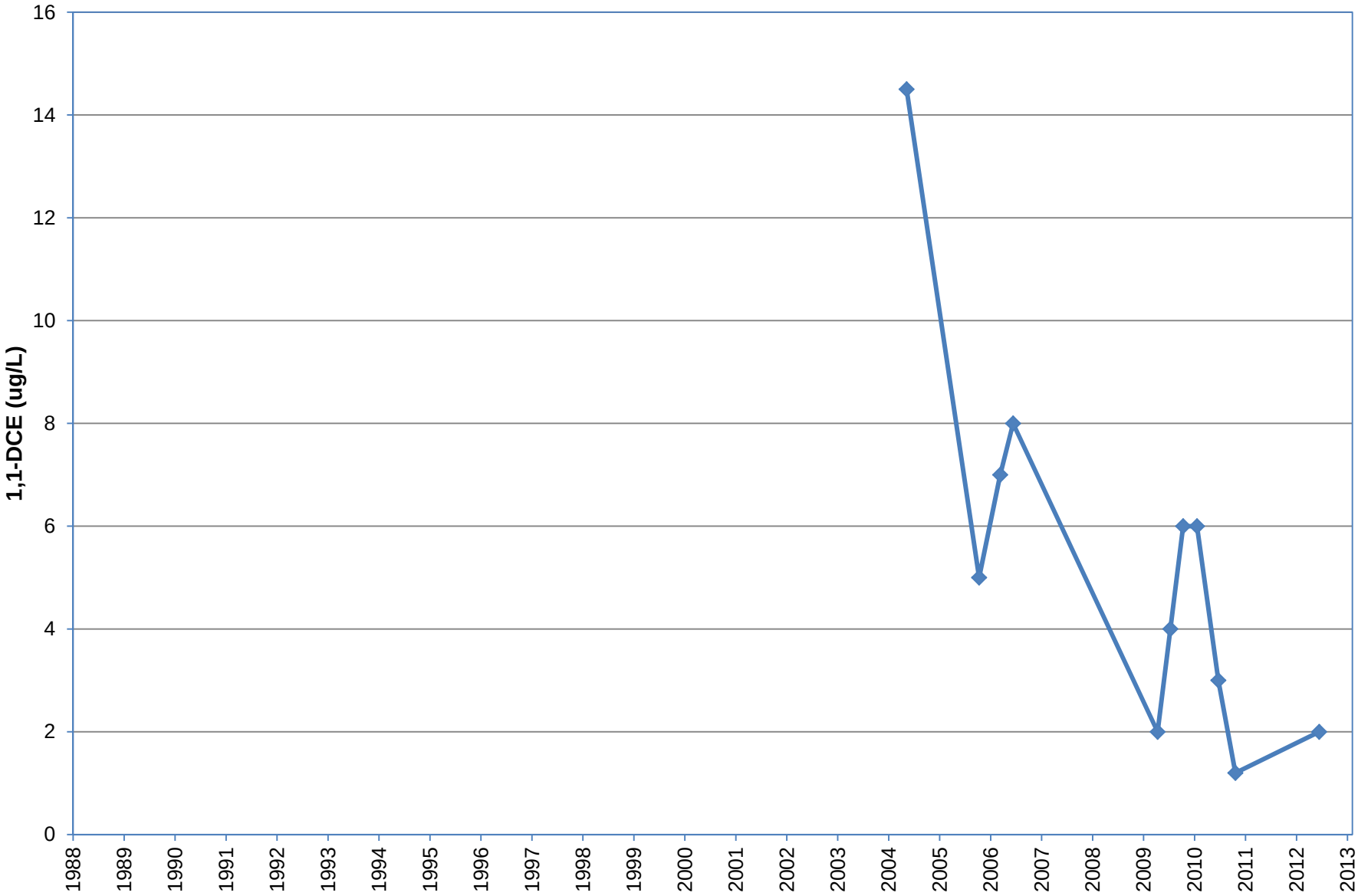
P-19D


1,1-DCE (ug/L)
16
14
12
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8
6
4
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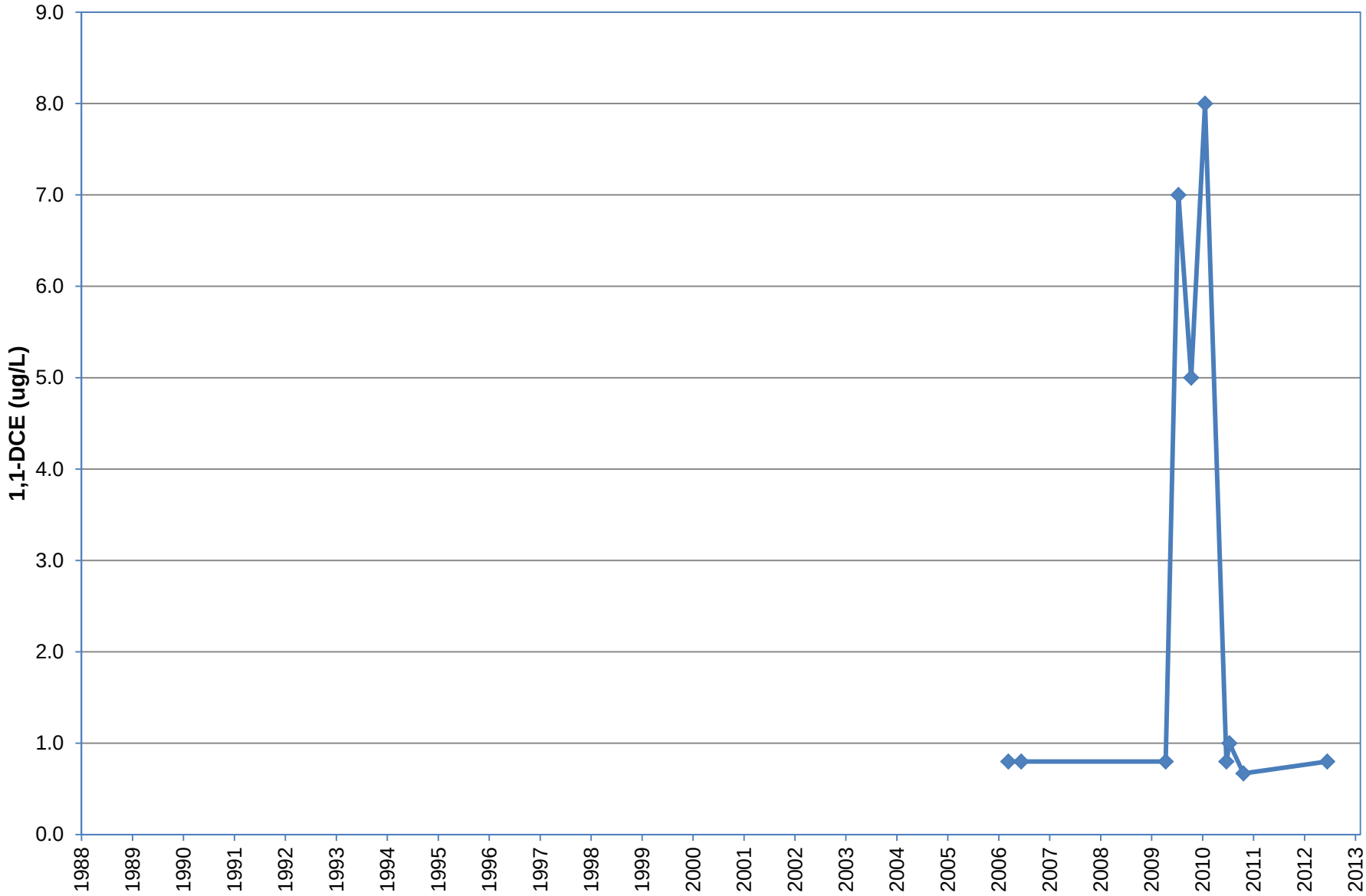
P-20S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7.0
6.0
5.0
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3.0
2.0
1.0
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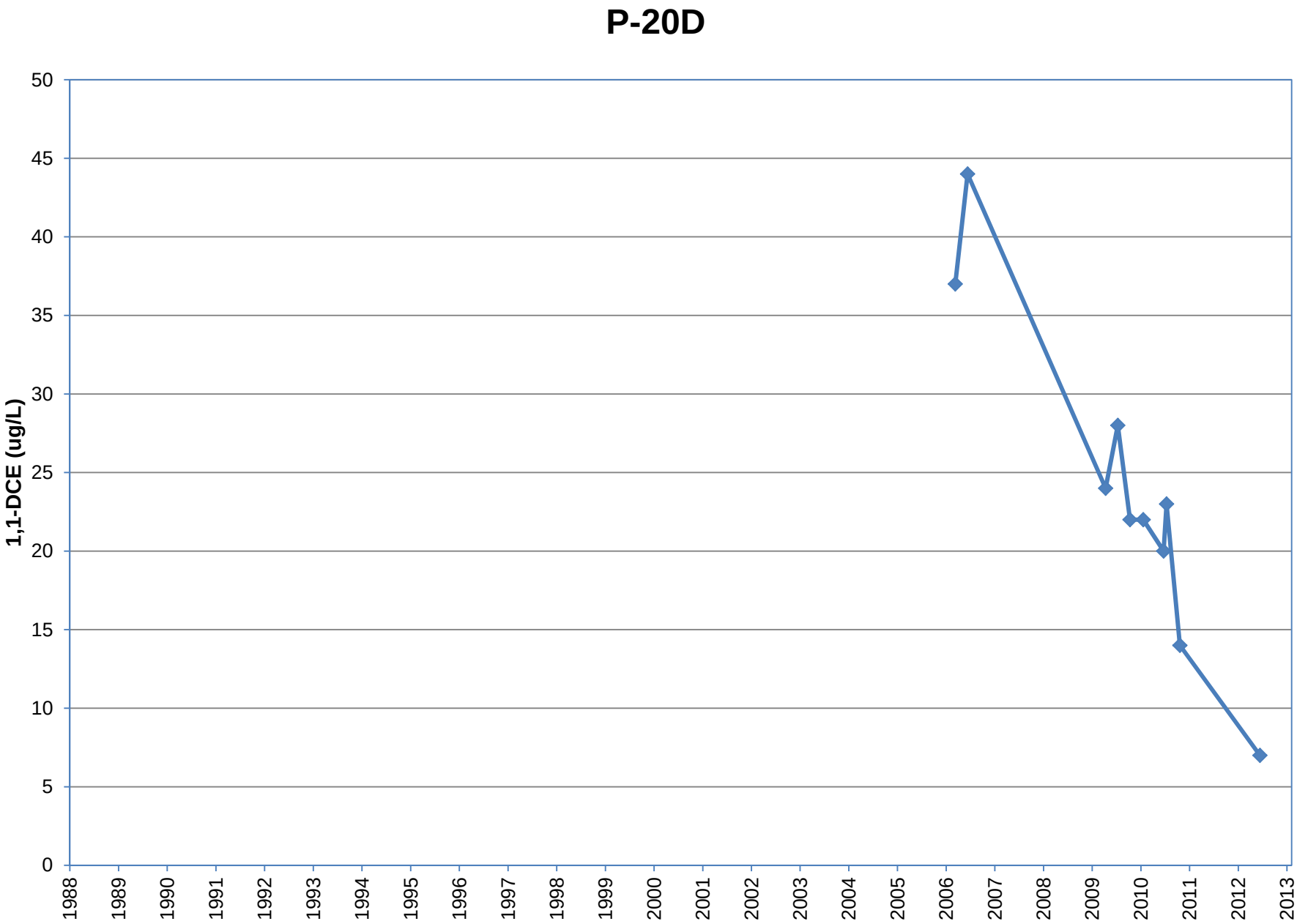
P-20D
1,1-DCE (ug/L)
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45
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35
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APPENDIX D

PROGRESS REPORT

The following sections contain the Progress Report for the reporting period from January 31, 2011 through September 30, 2012). The Progress Report was prepared in accordance with Section V.C. of the facility's Administrative Order on Consent (Order) dated March 29, 1988, and approved revisions (January 26, 2010).

i. Description and estimate of the percentage of the project completed

The project is approximately 70 percent complete. The following table outlines the status of the major project milestones.

Activity	Status
Preliminary Site Investigation	Complete (1986)
Closure of Drying Beds	Complete (1987); Approved (2005)
Interim Corrective Measures (French Sump Removal)	Complete (1990); Approved (1991)
RCRA Facility Investigation	Complete (1992); Approved (1992)
Corrective Measures Study	Complete (1993); Not Approved (1993)
Human Exposures Under Control (CA725)	Complete (2004)
Supplemental RCRA Facility Investigation	Complete (2005); Not Approved (2005)
Groundwater Contamination Under Control (CA750)	Pending
Corrective Measures Implementation	Pending
Site Closure	Pending

Following the closure of the Drying Beds and the French sump, GE performed a RCRA Facility Investigation (RFI) in 1992. The RFI was subsequently approved by the USEPA, and GE proceeded to perform a Corrective Measures Study (CMS) to address groundwater impacted by volatile organic compounds (VOCs) originating from the French sump. The results of the CMS indicated that monitored natural attenuation was an acceptable corrective measure for addressing impacted groundwater. In 1993, GE began monitoring groundwater as a self-implementation.

In 2000, the USEPA expressed concern that the CMS could not be approved due to insufficient groundwater characterization (e.g., the downgradient edge of the impacted groundwater had not been defined). In 2003, the USEPA and GE agreed that further investigation would be performed.

In 2005, GE performed a Supplemental RFI to further characterize the extent of impacted groundwater and to further evaluate the use of monitored natural attenuation as a corrective measure. The USEPA did not approve the Supplemental RFI as it felt further delineation was required. The USEPA and GE then agreed that GE would perform additional offsite groundwater sampling to address the data gaps identified in the Supplemental RFI. Subsequent to this agreement, GE was unable to

secure site access from property owner(s) located southwest of the Site. Consequently, GE was unable to perform the requested groundwater sampling. A *Groundwater Modeling Work Plan* (2007) was then developed and submitted to the USEPA with the intent of delineating the extent of impacted groundwater by using a computer model. The information obtained from executing this work plan would also be used to document the remaining Environmental Indicator Determination (*Groundwater Contamination Under Control - CA750)*, which is currently pending.

GE received approval from the USEPA to execute the Groundwater Modeling Work Plan in May 2009. GE initiated this work in June 2009 and submitted the draft results to the USEPA and EQB in September 2009. Subsequent to the fate and transport modeling and at the request of the USEPA, GE performed additional groundwater monitoring events (September 2009, December 2009, and March 2010 2010). The results of the September and December 2009 and March 2010 monitoring events were previously submitted to the USEPA.

A meeting between the USEPA and GE was held on April 22, 2010, to discuss the extent of impacted groundwater and the need for further downgradient characterization. During this meeting, GE agreed to the USEPA's request to continue groundwater monitoring on a quarterly basis for one additional year. Subsequent groundwater monitoring events were conducted in August and December of 2010. Sampling resumed in 2012 after approval of the revised Quality Assurance Project Plan (QAPP).

In June of 2010, GE ceased manufacturing operations at the Site, and in September of 2010, GE completed a Phase II Environmental Site Assessment (ESA) to document Site conditions prior to exiting the lease for the Site. The Phase II ESA included installation of 25 soil borings to an average depth of 15 feet' below ground surface, and soil sampling at several intervals within each of those 25 boring locations. The Phase II ESA also included installation of six temporary groundwater monitoring wells and four permanent monitoring wells at the Site, and their subsequent development and sampling. The results of the Phase II ESA are summarized in a separate document.

GE performed site closure and cleaning activities in March 2011, during which a 7-ft by 7-ft concrete vault was discovered northeast of the main building near the loading dock. The vault contained sediment and had several pipes entering and exiting the side walls. The sediment was removed and disposed of offsite during site closure and cleaning activities.

At the request of USEPA, in April 2011 GE agreed to evaluate whether VOC-impacted groundwater could be venting to the Rio Grande de Patillas. Surface water and pore-water sampling was proposed and approved along with the QAPP in May 2012. These sampling activities were conducted concurrently with the August 2012 groundwater monitoring event.

In September 2011, GE voluntarily collected soil and groundwater samples from the loading dock area to evaluate whether the presence of VOCs in sediment found in the concrete vault had resulted in environmental impacts. Soil and groundwater samples collected in the loading dock area indicated limited impacts to soil and groundwater associated with the vault. Based on the results of the investigation, GE

decided to permanently close the vault by filling it with clean backfill and topping it with a concrete cover. In August 2012, GE conducted concrete vault closure activities at the site. The vault was backfilled with clean backfill and topped with a concrete cover. Additionally, GE installed one monitoring well (P-23) during vault closure activities. The monitoring well was installed adjacent to the vault and is intended to be included in future routine groundwater monitoring events. Vault closure activities are summarized in a separate document.

After completing the groundwater delineation, GE plans to address the USEPA's comments on the CMS and Supplemental RFI. Following approval of these documents, GE will implement the final corrective measures for the Site with the intent of obtaining site closure.

ii. Summaries of all findings

Sludge drying beds were removed from the Site in 1989. To evaluate possible impacts to groundwater, monitoring was performed for three years following closure activities. Based on three years of post-closure groundwater monitoring, impacts were not identified, and the USEPA provided an Approval of Clean Closure for the sludge drying beds.

A French sump was formerly located onsite and used for waste disposal from 1977 until 1980. Wastes included treated wastewater sludge, waste oils, and spent solvents. In 1990, the French sump was removed as part of the Interim Measures. Completion of the Interim Corrective Measures was approved by the USEPA in 1991. Although the French sump was removed in 1990, residual groundwater impacts have been noted during the RFI (1992) and the Supplemental RFI (2005). The constituents of concern associated with the former French Sump include VOCs. The primary VOCs of concern include 1,1,1-trichloroethane (1,1,1-TCA) and 1,1-dichloroethene (1,1-DCE). The extent of groundwater impacted by 1,1,1-TCA does not extend off of GE's property. Historical sample results for 1,1,1-TCA range from non-detect to 586 micrograms per liter (µg/L). The extent of groundwater impacted by 1,1-DCE extends offsite (south-southwest) towards the Rio Chico and Rio Grande. Historical sample results for 1,1-DCE range from non-detect to 1,230 µg/L. The highest offsite sample result for 1,1-DCE is 110 µg/L (located approximately 250 feet southwest of the Site). VOC concentrations in groundwater samples collected near the former French sump have decreased.

The results from the previous sampling events indicate that the highest VOC concentrations (primarily 1,1-DCA and 1,1-DCE) were detected in the sample collected from well P-8D, which is located onsite and downgradient of the former French sump. The 1,1-DCE concentration for the farthest downgradient monitoring well sampled (P-20D, approximately 1,300 feet southwest of the former French sump) is approximately 7 µg/L. The extent of 1,1-DCE in the shallow zone is between P-9 and P-19S. For the deep zone, the extent is not defined by the downgradient monitoring wells, but based on groundwater modeling and recent surface water and pore-water sampling is between the Rio Grande and P-20D.

The most recent results from the August 2012 sampling event are enclosed and discussed in Section 4.0.

iii. Summaries of all changes made in the project during the reporting period

Progress reports are submitted with Groundwater Monitoring Reports (as appropriate).

GE performed site closure and cleaning activities in March 2011, during which a 7-ft by 7-ft concrete vault was discovered northeast of the main building near the loading dock. The vault contained sediment and had several pipes entering and exiting the side walls. The sediment was removed and disposed of offsite during site closure and cleaning activities.

At the request of USEPA, in April 2011 GE agreed to evaluate whether VOC-impacted groundwater could be venting to the Rio Grande de Patillas. Surface water and pore-water sampling was proposed and approved along with the QAPP in May 2012. These sampling activities were conducted concurrently with the August 2012 groundwater monitoring event.

In September 2011, GE voluntarily collected soil and groundwater samples from the loading dock area to evaluate whether the presence of VOCs in sediment found in the concrete vault had resulted in environmental impacts. Soil and groundwater samples collected in the loading dock area indicated limited impacts to soil and groundwater associated with the vault. Based on the results of the investigation, GE decided to permanently close the vault by filling it with clean backfill and topping it with a concrete cover. In August 2012, GE conducted concrete vault closure activities at the site. The vault was backfilled with clean backfill and topped with a concrete cover. Additionally, GE installed one monitoring well (P-23) during vault closure activities. The monitoring well was installed adjacent to the vault and is intended to be included in future routine groundwater monitoring events. Vault closure activities are summarized in a separate document.

iv. Summaries of all contacts with representatives of local community, public interest groups or State government during the reporting period

None.

v. Summaries of all problems or potential problems encountered during the reporting period

None.

vi. Actions being taken to rectify problems

None.

vii. Changes in personnel during the reporting period

None.

viii. Projected work for the next reporting period

Development of a groundwater monitoring plan and further negotiations with USEPA regarding characterization of impacted groundwater.

ix. Copies of daily reports, inspections reports, laboratory/monitoring data, etc.

Field data sheets and laboratory data for the August 2012 sampling event are enclosed.

GE plans to submit the information obtained during the vault closure activities as part of a separate document. This document is currently draft and will be finalized during the next reporting period.

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2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Type I Data Package

Prepared for:

MWH Americas, Inc.
P.O. Box 6610
Broomfield CO 80021

Project: GE Patillas Puerto Rico
Water Samples
Collected on 08/27/12

SDG# PTL09

GROUP	SAMPLE NUMBERS
1331673	6769183-6769204

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M Kauffman **Date:** **09/19/2012**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Natalie Luciano at Ext. 1881.

Total Number of Pages 586

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Table of Contents for SDG# PTL09

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2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Reference List for SDG Number PTL07 with a Data Package Type of I

12136 - MWH Americas, Inc.

Project: GE Patillas Puerto Rico

Lab Sample Number	Lab Sample Code	Client Sample Description
6766763	S1PAT	SW-01 Grab Water COC: 310619
6766764	P1PAT	PW-01 Grab Water COC: 310619
6766765	S2PAT	SW-02 Grab Water COC: 310619
6766766	P2PAT	PW-02 Grab Water COC: 310619
6766767	S3PAT	SW-03 Grab Water COC: 310619
6766768	P3PAT	PW-03 Grab Water COC: 310619

Environmental Analysis Request/Chain of Custody

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For Lancaster Laboratories use only

Acct. # 12136 Group # 1331141 Sample # 07666763-68

COC # 310619

Please print. Instructions on reverse side correspond with circled numbers.

For Lab Use Only
FSC:
SCR#:

(1) Client: MWH Americas Inc Acct. #: 12136
Project Name/#: Former GE Patillas PWSID #:
Project Manager: Omar Negrón P.O.#:
Sampler: Felix Ocasio Quote #:
Name of state where samples were collected: Puerto Rico

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	(3) Composite	(4) Matrix: Soil	Sediment	Water	Ground	Potable	Surface	NPDES	Other:	Total # of Containers	(5) Analyses Requested: 8260 Lab 38	Remarks
SW-01	082112		X				X						3	X	
PW-01	082112		X				X						3	X	
SW-02	082112		X				X						3	X	
PW-02	082112		X				X						3	X	
SW-03	082112		X				X						3	X	
PW-03	082112		X				X						3	X	

FAO

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

(6) Temperature of samples upon receipt (if requested)

(7) **Turnaround Time Requested** (TAT) (please circle): Standard Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone E-mail
Phone #: onegron@gesonline.com
E-mail address:

(8) **Data Package Options** (please circle if required)
Type I (Validation/non-CLP) MA MCP CT RCP
Type III (Reduced non-CLP)
Type IV (CLP SOW)
Type VI (Raw Data Only)
TX TRRP-13

EDD Required? Yes No

Site-specific QC (MS/MSD/Dup)? Yes No
(if yes, indicate QC sample and submit triplicate sample volume)

(9) Relinquished by:	Date	Time	Received by:	Date	Time
Felix Ocasio	082212	1600	Fedex 804532598 40	082311	1600
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	8-23-12	1005

Lancaster Laboratories, Inc., 2425 New Holland Pike, Lancaster, PA 17601 717-656-2300
The white copy should accompany samples to Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management 7044.01

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GH# 133141

Environmental Sample Administration Receipt Documentation Log

Client/Project: MWH Americas

Date of Receipt: 8.23.12

Time of Receipt: 1005

Source Code: 50-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2939	0.3	TB	TB	WI	Y	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Rec 6 vials for PWO2 3 vials Time =1400 3 vials 1410 missing SWO2

Unpacker Signature/Emp#: 2294 **Date/Time:** 8.23.12 1200

Issued by Dept. 6042 Management

2174.06

FILE 0005

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GC/MS Volatiles pH Log

Batch #: Y122472AA

LLI#	pH	Date Checked	Initials/ Employee #	Comments
6769939	<2	9/4/2012	ADS 1731	038a
6769616	<2	9/4/2012	ADS 1731	038a
6769617	<2	9/4/2012	ADS 1731	038a
6769618	<2	9/4/2012	ADS 1731	038a
6769619	<2	9/4/2012	ADS 1731	038a
6769620	<2	9/4/2012	ADS 1731	038a
6769621	<2	9/4/2012	ADS 1731	038a
6769936	<2	9/4/2012	ADS 1731	038b
6771415	<2	9/4/2012	ADS 1731	038b
6773615	<2	9/4/2012	ADS 1731	038a
6766763	<2	9/4/2012	ADS 1731	038a
6766764	<2	9/4/2012	ADS 1731	038a
6766765	<2	9/4/2012	ADS 1731	038a
6766766	<2	9/4/2012	ADS 1731	038a
6766767	<2	9/4/2012	ADS 1731	038a
6766768	<2	9/4/2012	ADS 1731	038a
6766769	<2	9/4/2012	ADS 1731	038a

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030B, December 1996.

10903 8260 Std. Water Master

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8260B, December 1996

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

MWH Americas, Inc.
P.O. Box 6610
Broomfield CO 80021

September 05, 2012

Project: GE Patillas Puerto Rico

Submittal Date: 08/23/2012
Group Number: 1331141
SDG: PTL07
PO Number: 10501055.010103
State of Sample Origin: PR

Client Sample Description	Lancaster Labs #	Collected
SW-01 Grab Water COC: 310619	6766763	08/21/2012 13:30
PW-01 Grab Water COC: 310619	6766764	08/21/2012 13:47
SW-02 Grab Water COC: 310619	6766765	08/21/2012 14:00
PW-02 Grab Water COC: 310619	6766766	08/21/2012 14:10
SW-03 Grab Water COC: 310619	6766767	08/21/2012 14:30
PW-03 Grab Water COC: 310619	6766768	08/21/2012 14:40

METHODOLOGY

The specified methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	MWH Americas, Inc.	Attn: Bradly Toth
1 COPY TO	Data Package Group	
ELECTRONIC COPY TO	MWH Americas, Inc.	Attn: Andy Ferenc

Respectfully Submitted,

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

MWH Americas, Inc.
P.O. Box 6610
Broomfield CO 80021

September 05, 2012

Natalie R. Luciano
Specialist

(717) 556-7258

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL07

Report Date: 9/5/2012 12:34
Submit Date: 8/23/2012 10:05

Analysis Name	Units	6766763 SW-01 Result	MDL	6766764 PW-01 Result	MDL	6766765 SW-02 Result	MDL
Acetone	ug/l	N.D.	6	N.D.	6	N.D.	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	N.D.	3	N.D.	3	N.D.	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	3 J	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL07

Report Date: 9/5/2012 12:34
Submit Date: 8/23/2012 10:05

4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

Analysis Name	Units	6766766 PW-02		6766767 SW-03		6766768 PW-03	
		Result	MDL	Result	MDL	Result	MDL
Acetone	ug/l	N.D.	6	N.D.	6	N.D.	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	N.D.	3	N.D.	3	N.D.	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL07

Report Date: 9/5/2012 12:34
Submit Date: 8/23/2012 10:05

Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

CAT No.	Analysis Name	Method	Trial ID	Batch	Analysis Date/Time	Analyst	Dilution
6766763	**SW-01 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	Y122472AA	9/4/12 0726	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122472AA	9/4/12 0726	Stephanie A Selis	1
6766764	**PW-01 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	Y122472AA	9/4/12 0747	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122472AA	9/4/12 0747	Stephanie A Selis	1
6766765	**SW-02 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	Y122472AA	9/4/12 0807	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122472AA	9/4/12 0807	Stephanie A Selis	1
6766766	**PW-02 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	Y122472AA	9/4/12 0828	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122472AA	9/4/12 0828	Stephanie A Selis	1
6766767	**SW-03 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	Y122472AA	9/4/12 0849	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122472AA	9/4/12 0849	Stephanie A Selis	1
6766768	**PW-03 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	Y122472AA	9/4/12 0909	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Y122472AA	9/4/12 0909	Stephanie A Selis	1

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

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Case Narrative/Conformance Summary

CLIENT: MWH Americas, Inc.
SDG: PTL07

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
6766763	SW-01	X		1	
6766764	PW-01	X		1	
6766765	SW-02	X		1	
6766766	PW-02	X		1	
6766767	SW-03	X		1	
6766768	PW-03	X		1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

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Case Narrative/Conformance Summary

CLIENT: MWH Americas, Inc.
SDG: PTL07

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 9/18/12 (Date) by Judi Brown

Judi Brown
Specialist

GC/MS VOLATILES CALCULATIONS:

1. Relative response factor (RRF)

$$RRF = \frac{Ax}{Ais} \times \frac{Cis}{Cx}$$

Where :
Ax = Area of the characteristic ion for the compound to be measured.
Ais = Area of the characteristic ion for the specific internal standard to be measured.
Cis = Concentration of the internal standard.
Cx = Concentration of the compound to be measured.

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{\text{Standard deviation}}{\text{mean}} \times 100$$

3. % Difference (%D)

$$\%D = \frac{RRFc - RRFi}{RRFi} \times 100$$

Where:
RRFc=Relative response factor from continuing calibration standard.
RRFi = Mean relative response factor from the initial calibration.

4. Concentration

$$\text{Concentration (ug/l)} = \frac{(Ax)\ (Is)\ (Df)}{(Ais)\ (RRF)}$$

Where:
Ax , Ais, RRF are as given in 1. above.
Is = Concentration of internal standard added in parts per billion (ug/l)
Df = Dilution factor

5. % Recovery (%Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:
SSR = Spiked sample result
SR = Sample result
SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{|MSR - MSDR|}{(1/2)\ (MSR+MSDR)} \times 100$$

Where:
MSR = Matrix spike recovery
MSDR = Matrix spike duplicate recovery

Quality Control and Calibration Summary Forms

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Quality Control Reference List
GC/MS Volatiles

CLIENT: MWH Americas, Inc.
SDG: PTL07

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
Volatiles by 8260	Y122472AA	VBLKY65	09/04/2012 00:39:00
		LCSY65	09/04/2012 01:58:00
		LCDY65	09/04/2012 02:19:00
		6766763	09/04/2012 07:26:00
		6766764	09/04/2012 07:47:00
		6766765	09/04/2012 08:07:00
		6766766	09/04/2012 08:28:00
		6766767	09/04/2012 08:49:00
		6766768	09/04/2012 09:09:00

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Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: PTL07
Matrix: LIQUID

Fraction: Volatiles by GC/MS

Y122472AA / VBLKY65 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Dichlorodifluoromethane	09/04/12	N.D.	ug/l	1	5
Chloromethane	09/04/12	N.D.	ug/l	1	5
Vinyl Chloride	09/04/12	N.D.	ug/l	1	5
Bromomethane	09/04/12	N.D.	ug/l	1	5
Chloroethane	09/04/12	N.D.	ug/l	1	5
Trichlorofluoromethane	09/04/12	N.D.	ug/l	1	5
1,1-Dichloroethene	09/04/12	N.D.	ug/l	0.8	5
Methyl Tertiary Butyl Ether	09/04/12	N.D.	ug/l	0.5	5
Acetone	09/04/12	N.D.	ug/l	6	20
Ethylbenzene	09/04/12	N.D.	ug/l	0.8	5
1,1,1,2-Tetrachloroethane	09/04/12	N.D.	ug/l	1	5
m+p-Xylene	09/04/12	N.D.	ug/l	0.8	5
Methylene Chloride	09/04/12	N.D.	ug/l	2	5
o-Xylene	09/04/12	N.D.	ug/l	0.8	5
trans-1,2-Dichloroethene	09/04/12	N.D.	ug/l	0.8	5
Styrene	09/04/12	N.D.	ug/l	1	5
Bromoform	09/04/12	N.D.	ug/l	1	5
1,1-Dichloroethane	09/04/12	N.D.	ug/l	1	5
Isopropylbenzene	09/04/12	N.D.	ug/l	1	5
2-Butanone	09/04/12	N.D.	ug/l	3	10
1,1,2,2-Tetrachloroethane	09/04/12	N.D.	ug/l	1	5
Bromobenzene	09/04/12	N.D.	ug/l	1	5
cis-1,2-Dichloroethene	09/04/12	N.D.	ug/l	0.8	5
2,2-Dichloropropane	09/04/12	N.D.	ug/l	1	5
1,2,3-Trichloropropane	09/04/12	N.D.	ug/l	1	5
Bromochloromethane	09/04/12	N.D.	ug/l	1	5
n-Propylbenzene	09/04/12	N.D.	ug/l	1	5
Chloroform	09/04/12	N.D.	ug/l	0.8	5
2-Chlorotoluene	09/04/12	N.D.	ug/l	1	5
1,1,1-Trichloroethane	09/04/12	N.D.	ug/l	0.8	5
1,3,5-Trimethylbenzene	09/04/12	N.D.	ug/l	1	5
4-Chlorotoluene	09/04/12	N.D.	ug/l	1	5
1,1-Dichloropropene	09/04/12	N.D.	ug/l	1	5
Benzene	09/04/12	N.D.	ug/l	0.5	5
tert-Butylbenzene	09/04/12	N.D.	ug/l	1	5
Carbon Tetrachloride	09/04/12	N.D.	ug/l	1	5
1,2-Dichloroethane	09/04/12	N.D.	ug/l	1	5
Trichloroethene	09/04/12	N.D.	ug/l	1	5
1,2-Dichloropropane	09/04/12	N.D.	ug/l	1	5
1,2,4-Trimethylbenzene	09/04/12	N.D.	ug/l	1	5
sec-Butylbenzene	09/04/12	N.D.	ug/l	1	5
Dibromomethane	09/04/12	N.D.	ug/l	1	5
Bromodichloromethane	09/04/12	N.D.	ug/l	1	5
1,3-Dichlorobenzene	09/04/12	N.D.	ug/l	1	5
cis-1,3-Dichloropropene	09/04/12	N.D.	ug/l	1	5

Fraction: Volatiles by GC/MS

Y122472AA / VBLKY65 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
p-Isopropyltoluene	09/04/12	N.D.	ug/l	1	5
1,4-Dichlorobenzene	09/04/12	N.D.	ug/l	1	5
4-Methyl-2-pentanone	09/04/12	N.D.	ug/l	3	10
Toluene	09/04/12	N.D.	ug/l	0.7	5
n-Butylbenzene	09/04/12	N.D.	ug/l	1	5
trans-1,3-Dichloropropene	09/04/12	N.D.	ug/l	1	5
1,2-Dichlorobenzene	09/04/12	N.D.	ug/l	1	5
1,1,2-Trichloroethane	09/04/12	N.D.	ug/l	0.8	5
1,2-Dibromo-3-chloropropane	09/04/12	N.D.	ug/l	2	5
Tetrachloroethene	09/04/12	N.D.	ug/l	0.8	5
1,3-Dichloropropane	09/04/12	N.D.	ug/l	1	5
1,2,4-Trichlorobenzene	09/04/12	N.D.	ug/l	1	5
Hexachlorobutadiene	09/04/12	N.D.	ug/l	2	5
Naphthalene	09/04/12	N.D.	ug/l	1	5
Dibromochloromethane	09/04/12	N.D.	ug/l	1	5
1,2-Dibromoethane	09/04/12	N.D.	ug/l	1	5
1,2,3-Trichlorobenzene	09/04/12	N.D.	ug/l	1	5
Chlorobenzene	09/04/12	N.D.	ug/l	0.8	5

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Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: PTL07
Matrix: LIQUID

Fraction: Volatiles by GC/MS

Y122472AA	Dibromofluoromethane		1,2-Dichloroethane-d4		Toluene-d8		4-Bromofluorobenzene	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKY65	106	80 - 116	102	77 - 113	97	80 - 113	94	78 - 113
LCSY65	104	80 - 116	103	77 - 113	98	80 - 113	98	78 - 113
LCDY65	103	80 - 116	103	77 - 113	98	80 - 113	98	78 - 113
6766763	107	80 - 116	103	77 - 113	97	80 - 113	94	78 - 113
6766764	108	80 - 116	103	77 - 113	96	80 - 113	92	78 - 113
6766765	109	80 - 116	104	77 - 113	97	80 - 113	93	78 - 113
6766766	110	80 - 116	104	77 - 113	96	80 - 113	93	78 - 113
6766767	109	80 - 116	104	77 - 113	96	80 - 113	92	78 - 113
6766768	109	80 - 116	104	77 - 113	97	80 - 113	92	78 - 113

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Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: PTL07
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSY65 LCSD: LCDY65	Batch: **Y122472AA** (Sample number(s): 6766763-6766768)							
Analyte	Spike Added ug/l	LCS Conc ug/l	LCSD Conc ug/l	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Dichlorodifluoromethane	20	15.29	15.11	76	76	47-120	1	30
Chloromethane	20	15.18	15.04	76	75	60-129	1	30
Vinyl Chloride	20	15.77	15.14	79	76	56-123	4	30
Bromomethane	20	16.91	16.57	85	83	44-120	2	30
Chloroethane	20	16.23	15.63	81	78	49-129	4	30
Trichlorofluoromethane	20	21.3	20.58	106	103	56-128	3	30
1,1-Dichloroethene	20	20.07	19.4	100	97	80-120	3	30
Methyl Tertiary Butyl Ether	20	18.99	18.76	95	94	68-121	1	30
1,1,1,2-Tetrachloroethane	20	19.89	19.67	99	98	79-120	1	30
Acetone	150	162.5	196.74	108	131	38-212	19	30
Ethylbenzene	20	18.44	18.15	92	91	79-120	2	30
m+p-Xylene	40	37.59	36.87	94	92	77-120	2	30
Methylene Chloride	20	19.1	18.97	96	95	80-126	1	30
o-Xylene	20	18.43	18.53	92	93	77-120	1	30
Styrene	20	17.21	17.07	86	85	77-120	1	30
trans-1,2-Dichloroethene	20	19.01	19.14	95	96	80-120	1	30
1,1-Dichloroethane	20	18.29	17.97	91	90	79-120	2	30
Bromoform	20	18.51	17.9	93	90	61-120	3	30
Isopropylbenzene	20	18.92	18.66	95	93	77-120	1	30
1,1,2,2-Tetrachloroethane	20	18.25	18.35	91	92	75-123	1	30
2-Butanone	150	133.93	146.25	89	97	53-155	9	30
Bromobenzene	20	18.23	18.46	91	92	80-120	1	30
cis-1,2-Dichloroethene	20	19.75	19.66	99	98	80-120	0	30
1,2,3-Trichloropropane	20	18.48	18.78	92	94	76-120	2	30
2,2-Dichloropropane	20	19.62	19.31	98	97	67-124	2	30
Bromochloromethane	20	19.69	19.38	98	97	77-130	2	30
n-Propylbenzene	20	18.24	18.28	91	91	77-130	0	30
2-Chlorotoluene	20	18.64	18.8	93	94	80-120	1	30
Chloroform	20	19.1	18.61	95	93	77-122	3	30
1,1,1-Trichloroethane	20	19.61	19.06	98	95	70-121	3	30
1,3,5-Trimethylbenzene	20	18.35	18.32	92	92	68-124	0	30
1,1-Dichloropropene	20	18.57	18.1	93	90	80-120	3	30
4-Chlorotoluene	20	18.23	18.42	91	92	80-120	1	30
1,2-Dichloroethane	20	19.35	18.53	97	93	64-130	4	30
Benzene	20	18.98	18.65	95	93	77-121	2	30
Carbon Tetrachloride	20	20.67	20.36	103	102	67-122	2	30
tert-Butylbenzene	20	18.09	18.3	90	91	80-120	1	30
Trichloroethene	20	19.36	18.97	97	95	80-120	2	30
1,2,4-Trimethylbenzene	20	18.05	18.21	90	91	69-122	1	30
1,2-Dichloropropane	20	17.66	17.33	88	87	80-120	2	30
Dibromomethane	20	19.16	18.73	96	94	80-120	2	30
sec-Butylbenzene	20	18.26	18.17	91	91	74-124	0	30

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSY65 LCSD: LCDY65	Batch: **Y122472AA** (Sample number(s): 6766763-6766768)							
Analyte	Spike Added ug/l	LCS Conc ug/l	LCSD Conc ug/l	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
1,3-Dichlorobenzene	20	18.03	18	90	90	80-120	0	30
Bromodichloromethane	20	19.57	18.99	98	95	73-120	3	30
cis-1,3-Dichloropropene	20	19.88	19.62	99	98	78-120	1	30
p-Isopropyltoluene	20	18.16	18.01	91	90	77-121	1	30
1,4-Dichlorobenzene	20	18.8	19.05	94	95	80-120	1	30
4-Methyl-2-pentanone	100	81.54	80.72	82	81	58-133	1	30
Toluene	20	18.38	18.07	92	90	79-120	2	30
n-Butylbenzene	20	17.5	17.56	88	88	73-130	0	30
trans-1,3-Dichloropropene	20	18.13	17.81	91	89	79-120	2	30
1,1,2-Trichloroethane	20	19.42	18.89	97	94	80-120	3	30
1,2-Dichlorobenzene	20	19.31	19.2	97	96	80-120	1	30
1,2-Dibromo-3-chloropropane	20	16.72	17.28	84	86	56-126	3	30
Tetrachloroethene	20	18.98	18.91	95	95	79-120	0	30
1,2,4-Trichlorobenzene	20	18.5	18.42	93	92	72-120	0	30
1,3-Dichloropropane	20	18.38	18.02	92	90	80-120	2	30
Hexachlorobutadiene	20	17.61	17.57	88	88	58-120	0	30
Naphthalene	20	18.31	18.08	92	90	47-126	1	30
1,2,3-Trichlorobenzene	20	18.26	17.89	91	89	71-120	2	30
1,2-Dibromoethane	20	18.78	18.61	94	93	76-120	1	30
Dibromochloromethane	20	19.89	19.6	99	98	72-120	1	30
Chlorobenzene	20	19.04	18.96	95	95	80-120	0	30

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.: PTL07___

Lab File ID: yl10t01.d BFB Injection Date: 07/10/12

Instrument ID: HP09355 BFB Injection Time: 08:43

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.02
75	30.0 - 60.0% of mass 95	48.08
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.22
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	88.48
175	5.0 - 9.0% of mass 174	6.36 (7.19)1
176	Greater than 95.0%, but less than 101.0% of mass 174	84.46 (95.46)1
177	5.0 - 9.0% of mass 176	5.70 (6.75)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	yl10i01.d	07/10/12	09:00
02	VSTD100	yl10i02.d	07/10/12	09:21
03	VSTD50	yl10i03.d	07/10/12	09:42
04	VSTD20	yl10i04.d	07/10/12	10:02
05	VSTD10	yl10i05.d	07/10/12	10:23
06	VSTD4	yl10i06.d	07/10/12	10:44
07	VSTD300	yl10i11.d	07/10/12	11:58
08	VSTD100	yl10i12.d	07/10/12	12:19
09	VSTD50	yl10i13.d	07/10/12	12:41
10	VSTD20	yl10i14.d	07/10/12	13:07
11	VSTD10	yl10i15.d	07/10/12	13:28
12	VSTD4	yl10i16.d	07/10/12	13:50
13	VSTD1	yl10i17.d	07/10/12	14:10

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_PTL07___

Lab File ID: ys03t05.d BFB Injection Date: 09/03/12

Instrument ID: HP09355 BFB Injection Time: 23:39

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.09
75	30.0 - 60.0% of mass 95	50.44
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.82
173	Less than 2.0% of mass 174	0.22 (0.25)1
174	Greater than 50.0% of mass 95	88.09
175	5.0 - 9.0% of mass 174	6.56 (7.45)1
176	Greater than 95.0%, but less than 101.0% of mass 174	87.49 (99.32)1
177	5.0 - 9.0% of mass 176	5.83 (6.66)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	ys03c01.d	09/04/12	00:19
02	VBLKY65	ys03b05.d	09/04/12	00:39
03	LCSY65	ys03l31a.d	09/04/12	01:58
04	LCDY65	ys03l32a.d	09/04/12	02:19
05	6769939	ys03s31.d	09/04/12	03:20
06	6769616	ys03s32.d	09/04/12	03:40
07	6769617	ys03s33.d	09/04/12	04:01
08	6769618	ys03s34.d	09/04/12	04:21
09	6769619	ys03s35.d	09/04/12	04:42
10	6769620	ys03s36.d	09/04/12	05:02
11	6769621	ys03s37.d	09/04/12	05:43
12	6769936DL	ys03s38.d	09/04/12	06:03
13	6771415DL2	ys03s39.d	09/04/12	06:24
14	6773615	ys03s40.d	09/04/12	06:45
15	6773615DL	ys03s41.d	09/04/12	07:05
16	6766763	ys03s42.d	09/04/12	07:26
17	6766764	ys03s43.d	09/04/12	07:47
18	6766765	ys03s44.d	09/04/12	08:07
19	6766766	ys03s45.d	09/04/12	08:28
20	6766767	ys03s46.d	09/04/12	08:49
21	6766768	ys03s47.d	09/04/12	09:09
22	6766769	ys03s48.d	09/04/12	09:30

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 07/10/12 07/10/12

Heated Purge: (Y/N) Y Calibration Times: 11:58 14:10

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

LAB FILE ID: RRF 1 = yl10i17.d RRF 4 = yl10i16.d RRF 10= yl10i15.d
RRF 20= yl10i14.d RRF 50= yl10i13.d RRF100= yl10i12.d RRF300= yl10i11.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	$\overline{RRF}$	% RSD	CAL. METHOD	
Dichlorodifluoromethane	0.3008	0.4266	0.4571	0.4289	0.4184	0.4000	0.3801	0.4017	13	AVG	
Chloromethane	#0.4236	0.4585	0.4998	0.4142	0.3995	0.3878	0.3676	0.4216	11	AVG	#
Vinyl Chloride	*0.3790	0.4195	0.4708	0.4047	0.3838	0.3745	0.3447	0.3967	10	AVG	*
1,3-Butadiene	0.3764	0.2768	0.2893	0.2724	0.2777	0.2771	0.2525	0.2889	14	AVG	
Bromomethane	0.2481	0.2615	0.2917	0.2429	0.2328	0.2252	0.1991	0.2431	12	AVG	
Chloroethane	0.1935	0.2260	0.2520	0.2092	0.2029	0.1949	0.1659	0.2063	13	AVG	
Dichlorofluoromethane	0.5227	0.5359	0.4760	0.4822	0.4895	0.4698	0.4280	0.4863	7	AVG	
Trichlorofluoromethane	0.3443	0.4464	0.4927	0.4441	0.4330	0.4118	0.3865	0.4227	11	AVG	
n-Pentane		0.5150	0.4759	0.5040	0.4740	0.4638	0.4044	0.4728	8	AVG	
Ethyl Ether		0.2587	0.2776	0.2396	0.2532	0.2496	0.2145	0.2489	8	AVG	
Freon 123a		0.3540	0.3017	0.2900	0.2789	0.2733	0.2612	0.2932	11	AVG	
Acrolein		1.5781	1.7007	1.4991	1.7837	1.9663	1.7464	1.7124	10	AVG	
1,1-Dichloroethene	*0.2186	0.2462	0.2227	0.2176	0.2252	0.2250	0.2129	0.2240	5	AVG	*
Freon 113		0.2580	0.2354	0.2373	0.2498	0.2509	0.2330	0.2441	4	AVG	
Acetone		0.0653	0.0653	0.0561	0.0562	0.0571	0.0483	0.0580	11	AVG	
Methyl Iodide	0.3913	0.4524	0.4429	0.4113	0.4395	0.4345	0.4112	0.4262	5	AVG	
2-Propanol		0.6630	0.7505	0.5832	0.6616	0.5769	0.5267	0.6270	13	AVG	
Carbon Disulfide		0.7240	0.6933	0.6722	0.7263	0.7246	0.6924	0.7055	3	AVG	
Allyl Chloride		0.4529	0.4340	0.4097	0.4253	0.4266	0.3966	0.4242	5	AVG	
Methyl Acetate		0.4943	0.4447	0.3810	0.3942	0.4001	0.3566	0.4118	12	AVG	
Methylene Chloride	0.3056	0.2925	0.2798	0.2576	0.2688	0.2682	0.2527	0.2750	7	AVG	
t-Butyl Alcohol	1.2431	1.3520	1.4944	1.3086	1.4452	1.5212	1.5020	1.4095	8	AVG	
Acrylonitrile		0.2623	0.2396	0.2132	0.2285	0.2171	0.1945	0.2259	10	AVG	
trans-1,2-Dichloroethene	0.2507	0.2988	0.2739	0.2608	0.2764	0.2671	0.2592	0.2695	6	AVG	
Methyl Tertiary Butyl Ether	0.9590	1.0223	1.0435	0.9363	0.9793	0.9624	0.9183	0.9744	5	AVG	
n-Hexane		0.5373	0.4572	0.4472	0.4571	0.4791	0.4577	0.4726	7	AVG	
1,2-Dichloroethene (total)	0.2663	0.3092	0.2949	0.2755	0.2933	0.2876	0.2779	0.2864	5	AVG	
1,1-Dichloroethane	#0.4762	0.5712	0.5448	0.5132	0.5467	0.5430	0.5210	0.5309	6	AVG	#
di-Isopropyl Ether	1.0637	1.1567	1.0730	0.9994	1.0324	1.0179	0.9654	1.0441	6	AVG	
2-Chloro-1,3-Butadiene		0.5055	0.4764	0.4632	0.4814	0.4783	0.4584	0.4772	3	AVG	
Ethyl t-Butyl Ether	0.9576	1.0418	1.0550	0.9704	0.9966	0.9892	0.9063	0.9881	5	AVG	
cis-1,2-Dichloroethene	0.2820	0.3196	0.3158	0.2903	0.3102	0.3081	0.2966	0.3032	5	AVG	
2-Butanone		0.3394	0.3499	0.3114	0.3439	0.3509	0.3062	0.3336	6	AVG	
2,2-Dichloropropane	0.3668	0.4436	0.4178	0.4047	0.4324	0.4270	0.4123	0.4149	6	AVG	
Propionitrile		1.3938	1.5662	1.3863	1.5235	1.6403	1.6431	1.5255	7	AVG	
Methacrylonitrile		0.2141	0.2323	0.2059	0.2156	0.2196	0.2068	0.2157	4	AVG	
Bromochloromethane		0.1619	0.1639	0.1457	0.1588	0.1599	0.1519	0.1570	4	AVG	
Tetrahydrofuran		1.2723	1.3707	1.2464	1.4799	1.5901	1.5087	1.4113	10	AVG	
Chloroform	*0.5256	0.5338	0.5256	0.4809	0.5111	0.5104	0.4874	0.5107	4	AVG	*
1,1,1-Trichloroethane	0.4643	0.5462	0.4806	0.4568	0.4658	0.4644	0.4499	0.4754	7	AVG	
Cyclohexane		0.5995	0.5306	0.5213	0.5414	0.5456	0.5170	0.5426	6	AVG	
Cyclohexane(mz 84)		0.4739	0.4269	0.4237	0.4422	0.4445	0.4231	0.4391	4	AVG	
Cyclohexane(mz 69)		0.1708	0.1573	0.1574	0.1633	0.1642	0.1570	0.1617	3	AVG	
1,1-Dichloropropene	0.3494	0.4375	0.4037	0.3890	0.4148	0.4160	0.4015	0.4017	7	AVG	
Carbon Tetrachloride	0.2945	0.3571	0.3456	0.3391	0.3700	0.3753	0.3683	0.3500	8	AVG	
Isobutyl Alcohol		0.4112	0.4572	0.3923	0.4201	0.4451	0.4243	0.4250	5	AVG	
Benzene	1.1127	1.2592	1.2146	1.1362	1.2037	1.1931	1.1305	1.1786	5	AVG	
1,2-Dichloroethane	0.4373	0.4546	0.4683	0.4160	0.4431	0.4483	0.4243	0.4417	4	AVG	
1,2-Dichloroethane(mz 98)	0.0300	0.0385	0.0401	0.0365	0.0386	0.0393	0.0378	0.0373	9	AVG	
t-Amyl Methyl Ether	0.8749	0.9483	0.9776	0.8738	0.9258	0.9510	0.8926	0.9206	4	AVG	
n-Heptane		0.6925	0.5436	0.5448	0.5226	0.5357	0.5384	0.5629	11	AVG	
n-Butanol		0.3553	0.4134	0.3596	0.3896	0.4052	0.3873	0.3851	6	AVG	

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 07/10/12 07/10/12

Heated Purge: (Y/N) Y Calibration Times: 11:58 14:10

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

LAB FILE ID: RRF 1 = yl10i17.d RRF 4 = yl10i16.d RRF 10= yl10i15.d
RRF 20= yl10i14.d RRF 50= yl10i13.d RRF100= yl10i12.d RRF300= yl10i11.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	$\overline{RRF}$	% RSD	CAL. METHOD	
Trichloroethene	0.2830	0.3208	0.3040	0.2867	0.3058	0.3035	0.2949	0.2998	4	AVG	
1,2-Dichloropropane	*0.2990	0.3358	0.3368	0.3084	0.3299	0.3296	0.3118	0.3216	5	AVG	*
Methylcyclohexane(mz98)		0.2420	0.2361	0.2299	0.2424	0.2475	0.2347	0.2387	3	AVG	
Methylcyclohexane		0.5432	0.5358	0.5248	0.5387	0.5549	0.5197	0.5362	2	AVG	
Methyl Methacrylate		0.3451	0.3695	0.3203	0.3425	0.3498	0.3341	0.3435	5	AVG	
Dibromomethane	0.1855	0.2127	0.2142	0.1936	0.2068	0.2085	0.2003	0.2031	5	AVG	
1,4-Dioxane		0.0951	0.1106	0.0968	0.1031	0.0972	0.1100	0.1021	7	AVG	
Bromodichloromethane	0.3094	0.3550	0.3677	0.3390	0.3772	0.3870	0.3790	0.3592	8	AVG	
2-Nitropropane		0.1433	0.1497	0.1416	0.1674	0.1773	0.1599	0.1565	9	AVG	
2-Chloroethyl Vinyl Ether		0.2627	0.2831	0.2699	0.2728	0.2720	0.2562	0.2695	3	AVG	
cis-1,3-Dichloropropene	0.3891	0.4730	0.4906	0.4532	0.4970	0.5050	0.4867	0.4706	8	AVG	
4-Methyl-2-Pentanone		0.6182	0.6397	0.5896	0.6557	0.6718	0.5729	0.6246	6	AVG	
Toluene	*0.9602	1.1181	1.0734	1.0006	1.0577	1.0599	1.0070	1.0395	5	AVG	*
trans-1,3-Dichloropropene	0.5228	0.6108	0.6728	0.6121	0.6755	0.6968	0.6750	0.6380	10	AVG	
Ethyl Methacrylate		0.7392	0.8013	0.7029	0.7379	0.7691	0.7307	0.7468	5	AVG	
1,1,2-Trichloroethane	0.3602	0.4122	0.4326	0.3787	0.4002	0.4066	0.3890	0.3971	6	AVG	
Tetrachloroethene	0.4297	0.5197	0.4822	0.4603	0.4873	0.4869	0.4761	0.4775	6	AVG	
1,3-Dichloropropane	0.6436	0.7399	0.7722	0.6735	0.7217	0.7327	0.6944	0.7111	6	AVG	
2-Hexanone		0.7019	0.7297	0.6585	0.7334	0.7492	0.6504	0.7038	6	AVG	
Dibromochloromethane	0.3283	0.3582	0.3985	0.3627	0.4154	0.4354	0.4327	0.3902	11	AVG	
1,2-Dibromoethane	0.3930	0.4358	0.4767	0.4182	0.4447	0.4517	0.4364	0.4367	6	AVG	
Chlorobenzene	#1.1056	1.2234	1.2236	1.1217	1.1962	1.1983	1.1336	1.1718	4	AVG	#
1,1,1,2 Tetrachloroethane	0.3358	0.3791	0.4012	0.3705	0.4067	0.4152	0.4022	0.3872	7	AVG	
Ethylbenzene	*	2.1351	2.0672	1.9353	2.0664	2.0759	1.8998	2.0299	5	AVG	*
m+p-Xylene		0.8293	0.8095	0.7596	0.8036	0.8031	0.7390	0.7907	4	AVG	
Xylene (Total)		0.8207	0.8093	0.7561	0.8001	0.8016	0.7376	0.7875	4	AVG	
o-Xylene		0.8034	0.8087	0.7491	0.7930	0.7988	0.7347	0.7813	4	AVG	
Styrene		1.3560	1.3883	1.2680	1.3580	1.3663	1.2554	1.3320	4	AVG	
Bromoform	#	0.2663	0.3159	0.2888	0.3336	0.3604	0.3652	0.3217	12	AVG	#
Isopropylbenzene		2.1666	2.0792	1.9797	2.0855	2.0731	1.8288	2.0355	6	AVG	
Cyclohexanone	0.4708	0.4858	0.4938	0.4727	0.5234	0.5020	0.5452	0.4991	5	AVG	
1,1,2,2-Tetrachloroethane	#1.1427	1.2078	1.2795	1.1298	1.1618	1.1792	1.1354	1.1766	5	AVG	#
trans-1,4-Dichloro-2-Butene		0.3769	0.4247	0.3841	0.4129	0.4161	0.4151	0.4050	5	AVG	
Bromobenzene		0.9616	0.9613	0.8697	0.9117	0.9148	0.8930	0.9187	4	AVG	
1,2,3-Trichloropropane		0.4010	0.4099	0.3588	0.3693	0.3742	0.3666	0.3800	5	AVG	
n-Propylbenzene		4.4103	4.2282	3.9626	4.1220	4.0926	3.4896	4.0509	8	AVG	
2-Chlorotoluene		0.8708	0.8768	0.8123	0.8421	0.8539	0.8179	0.8456	3	AVG	
1,3,5-Trimethylbenzene		3.1568	3.0957	2.9252	3.0370	3.0593	2.6984	2.9954	5	AVG	
4-Chlorotoluene		0.9275	0.9224	0.8433	0.8845	0.8915	0.8399	0.8848	4	AVG	
tert-Butylbenzene		0.7124	0.6796	0.6532	0.6818	0.7009	0.6415	0.6782	4	AVG	
Pentachloroethane		0.4852	0.5240	0.4971	0.5547	0.6027	0.5390	0.5338	8	AVG	
1,2,4-Trimethylbenzene		3.2765	3.1903	3.0012	3.1154	3.1492	2.7717	3.0840	6	AVG	
sec-Butylbenzene		4.0454	3.8760	3.6774	3.7688	3.7959	3.1967	3.7267	8	AVG	
p-Isopropyltoluene		3.5709	3.4798	3.2939	3.3891	3.4320	2.9091	3.3458	7	AVG	
1,3-Dichlorobenzene		1.8689	1.8227	1.6829	1.7455	1.7541	1.6636	1.7563	4	AVG	
1,4-Dichlorobenzene		1.9209	1.8926	1.7302	1.7941	1.8048	1.6824	1.8042	5	AVG	
1,2,3-Trimethylbenzene		3.2834	3.3194	3.0204	3.1818	3.2864	2.7098	3.1335	7	AVG	
Benzyl Chloride		2.1867	2.5177	2.3217	2.5108	2.6206	2.4511	2.4348	6	AVG	
1,3-Diethylbenzene		2.0437	2.0862	1.9359	2.0319	2.0867	1.7975	1.9970	6	AVG	
1,4-Diethylbenzene		2.1463	2.1562	2.0353	2.0977	2.1663	1.8178	2.0699	6	AVG	
n-Butylbenzene		1.7413	1.6844	1.6031	1.6298	1.6688	1.4879	1.6359	5	AVG	
1,2-Dichlorobenzene		1.7788	1.8041	1.6302	1.6704	1.7029	1.5145	1.6835	6	AVG	

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 07/10/12 07/10/12

Heated Purge: (Y/N) Y Calibration Times: 11:58 14:10

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

LAB FILE ID: RRF 1 = yl10i17.d RRF 4 = yl10i16.d RRF 10= yl10i15.d
RRF 20= yl10i14.d RRF 50= yl10i13.d RRF100= yl10i12.d RRF300= yl10i11.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	$\overline{RRF}$	% RSD	CAL. METHOD
1,2-Diethylbenzene		1.7535	1.7574	1.6110	1.6962	1.7522	1.5023	1.6788	6	AVG
1,2-Dibromo-3-Chloropropane		0.3056	0.3380	0.3139	0.3270	0.3392	0.3304	0.3257	4	AVG
1,3,5-Trichlorobenzene		1.4736	1.4818	1.3698	1.3707	1.4260	1.2440	1.3943	6	AVG
1,2,4-Trichlorobenzene		1.4085	1.4011	1.2956	1.2907	1.3336	1.1389	1.3114	8	AVG
Hexachlorobutadiene		0.7299	0.6658	0.6436	0.6349	0.6697	0.5799	0.6540	8	AVG
Naphthalene		4.5515	4.7828	4.2956	4.2592	4.2975	3.2375	4.2373	13	AVG
1,2,3-Trichlorobenzene		1.4187	1.4022	1.2796	1.2563	1.2996	1.1020	1.2931	9	AVG
2-Methylnaphthalene		2.8624	2.7786	2.6274	2.5791	2.7561	1.9588	2.5937	13	AVG
Dibromofluoromethane	0.2297	0.2323	0.2280	0.2313	0.2325	0.2327	0.2314	0.2311	1	AVG
Dibromofluoromethane(mz111)	0.2351	0.2356	0.2344	0.2351	0.2371	0.2360	0.2384	0.2360	1	AVG
1,2-Dichloroethane-d4	0.0617	0.0609	0.0597	0.0618	0.0594	0.0601	0.0595	0.0604	2	AVG
1,2-Dichloroethane-d4(mz104)	0.0385	0.0385	0.0380	0.0383	0.0383	0.0384	0.0386	0.0384	1	AVG
1,2-Dichloroethane-d4(mz65)	0.3060	0.3095	0.3097	0.3144	0.3038	0.3018	0.2989	0.3063	2	AVG
Toluene-d8(mz100)	0.8806	0.8885	0.8838	0.8943	0.9027	0.9150	0.9993	0.9092	5	AVG
4-Bromofluorobenzene(mz174)	0.4399	0.4438	0.4399	0.4417	0.4399	0.4421	0.4425	0.4414	0	AVG
Toluene-d8	1.3562	1.3602	1.3546	1.3578	1.3677	1.3631	1.3689	1.3612	0	AVG
4-Bromofluorobenzene	0.5076	0.5127	0.5041	0.5121	0.5046	0.5098	0.5054	0.5080	1	AVG

Average %RSD 6

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP09355.i/12jul10a.b/yl10i11.d VSTD300
/chem2/HP09355.i/12jul10a.b/yl10i12.d VSTD100
/chem2/HP09355.i/12jul10a.b/yl10i13.d VSTD050
/chem2/HP09355.i/12jul10a.b/yl10i14.d VSTD020
/chem2/HP09355.i/12jul10a.b/yl10i15.d VSTD010
/chem2/HP09355.i/12jul10a.b/yl10i16.d VSTD004
/chem2/HP09355.i/12jul10a.b/yl10i17.d VSTD001

Area Summary

File ID:

Internal Standard Name	yl10i11.d	yl10i12.d	yl10i13.d	yl10i14.d	yl10i15.d	yl10i16.d	yl10i17.d	Avg. Area	%RS
t-Butyl Alcohol-d10	337961	355248	375285	403476	403302	417068	445533	391125	10
Fluorobenzene	1238196	1233663	1221798	1206833	1218727	1205608	1204616	1218492	1
Chlorobenzene-d5	896991	895892	888114	876837	883720	874337	872490	884054	1
1,4-Dichlorobenzene-d4	515827	529426	523859	510087	512770	507838	510607	515773	2

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	yl10i11.d	yl10i12.d	yl10i13.d	yl10i14.d	yl10i15.d	yl10i16.d	yl10i17.d	Avg. RT
t-Butyl Alcohol-d10	2.036	2.042	2.042	2.042	2.042	2.042	2.054	2.043
Fluorobenzene	4.147	4.147	4.147	4.147	4.147	4.147	4.147	4.147
Chlorobenzene-d5	7.335	7.328	7.329	7.329	7.328	7.329	7.329	7.329
1,4-Dichlorobenzene-d4	9.354	9.354	9.354	9.354	9.354	9.354	9.354	9.354

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 07/10/2012 at 14:41.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 07/10/12 Time: 14:55

Lab File ID: yl10v02.d Init. Calib. Date(s): 07/10/12 07/10/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

	COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Dichlorodifluoromethane	0.4017	0.2874	14.31	20	-28	
#	Chloromethane	0.4216	0.3378	16.03	20	-20	#
*	Vinyl Chloride	0.3967	0.3357	16.92	20	-15	*
	1,3-Butadiene	0.2889	0.2539	17.58	20	-12	
	Bromomethane	0.2431	0.1871	15.40	20	-23	
	Chloroethane	0.2063	0.1468	14.22	20	-29	
	Dichlorofluoromethane	0.4863	0.5004	20.58	20	3	
	Trichlorofluoromethane	0.4227	0.3952	18.70	20	-7	
	n-Pentane	0.4728	0.2457	10.39	20	-48	
	Ethyl Ether	0.2489	0.2045	16.43	20	-18	
	Freon 123a	0.2932	0.2964	20.22	20	1	
	Acrolein	1.7124	1.4015	122.77	150	-18	
*	1,1-Dichloroethene	0.2240	0.2158	19.27	20	-4	*
	Freon 113	0.2441	0.2250	18.44	20	-8	
	Acetone	0.0580	0.0498	128.67	150	-14	
	Methyl Iodide	0.4262	0.3974	18.65	20	-7	
	2-Propanol	0.6270	0.6514	155.84	150	4	
	Carbon Disulfide	0.7055	0.6151	17.44	20	-13	
	Allyl Chloride	0.4242	0.3779	17.82	20	-11	
	Methyl Acetate	0.4118	0.4332	21.04	20	5	
	Methylene Chloride	0.2750	0.2541	18.48	20	-8	
	t-Butyl Alcohol	1.4095	1.3599	192.96	200	-4	
	Acrylonitrile	0.2259	0.2150	95.19	100	-5	
	trans-1,2-Dichloroethene	0.2695	0.2651	19.67	20	-2	
	Methyl Tertiary Butyl Ether	0.9744	0.9402	19.30	20	-4	
	n-Hexane	0.4726	0.4481	18.97	20	-5	
	1,2-Dichloroethene (total)	0.2864	0.2803	39.16	40	-2	
#	1,1-Dichloroethane	0.5309	0.5205	19.61	20	-2	#
	di-Isopropyl Ether	1.0441	0.9800	18.77	20	-6	
	2-Chloro-1,3-Butadiene	0.4772	0.4616	19.34	20	-3	
	Ethyl t-Butyl Ether	0.9881	0.9397	19.02	20	-5	
	cis-1,2-Dichloroethene	0.3032	0.2954	19.49	20	-3	
	2-Butanone	0.3336	0.3137	141.05	150	-6	
	2,2-Dichloropropane	0.4149	0.3959	19.08	20	-5	
	Propionitrile	1.5255	1.4978	147.27	150	-2	
	Methacrylonitrile	0.2157	0.2077	144.43	150	-4	

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 07/10/12 Time: 14:55

Lab File ID: yl10v02.d Init. Calib. Date(s): 07/10/12 07/10/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

	COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Bromochloromethane	0.1570	0.1489	18.97	20	-5	
	Tetrahydrofuran	1.4113	1.3603	96.39	100	-4	
*	Chloroform	0.5107	0.4660	18.25	20	-9	*
	1,1,1-Trichloroethane	0.4754	0.3983	16.76	20	-16	
	Cyclohexane	0.5426	0.5061	18.66	20	-7	
	1,1-Dichloropropene	0.4017	0.3764	18.74	20	-6	
	Carbon Tetrachloride	0.3500	0.3328	19.02	20	-5	
	Isobutyl Alcohol	0.4250	0.3849	452.80	500	-9	
	Benzene	1.1786	1.1279	19.14	20	-4	
	1,2-Dichloroethane	0.4417	0.4229	19.15	20	-4	
	t-Amyl Methyl Ether	0.9206	0.8708	18.92	20	-5	
	n-Heptane	0.5629	0.5263	18.70	20	-7	
	n-Butanol	0.3851	0.3497	908.04	1000	-9	
	Trichloroethene	0.2998	0.2851	19.02	20	-5	
*	1,2-Dichloropropane	0.3216	0.3091	19.22	20	-4	*
	Methylcyclohexane	0.5362	0.5268	19.65	20	-2	
	Methyl Methacrylate	0.3435	0.3176	18.49	20	-8	
	Dibromomethane	0.2031	0.1932	19.02	20	-5	
	1,4-Dioxane	0.1021	0.1006	492.42	500	-2	
	Bromodichloromethane	0.3592	0.3325	18.52	20	-7	
	2-Nitropropane	0.1565	0.1252	15.99	20	-20	
	2-Chloroethyl Vinyl Ether	0.2695	0.2543	18.88	20	-6	
	cis-1,3-Dichloropropene	0.4706	0.4877	20.72	20	4	
	4-Methyl-2-Pentanone	0.6246	0.5829	93.32	100	-7	
*	Toluene	1.0395	0.9836	18.92	20	-5	*
	trans-1,3-Dichloropropene	0.6380	0.6010	18.84	20	-6	
	Ethyl Methacrylate	0.7468	0.7076	18.95	20	-5	
	1,1,2-Trichloroethane	0.3971	0.3810	19.19	20	-4	
	Tetrachloroethene	0.4775	0.4567	19.13	20	-4	
	1,3-Dichloropropane	0.7111	0.6833	19.22	20	-4	
	2-Hexanone	0.7038	0.6535	92.84	100	-7	
	Dibromochloromethane	0.3902	0.3644	18.68	20	-7	
	1,2-Dibromoethane	0.4367	0.4165	19.08	20	-5	
#	Chlorobenzene	1.1718	1.1208	19.13	20	-4	#
	1,1,1,2-Tetrachloroethane	0.3872	0.3592	18.55	20	-7	
*	Ethylbenzene	2.0299	1.9290	19.01	20	-5	*

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 07/10/12 Time: 14:55

Lab File ID: yl10v02.d Init. Calib. Date(s): 07/10/12 07/10/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

	COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	m+p-Xylene	0.7907	0.7581	38.35	40	-4	
	Xylene (Total)	0.7875	0.5468	57.29	60	-5	
	o-Xylene	0.7813	0.7397	18.93	20	-5	
	Styrene	1.3320	1.2540	18.83	20	-6	
#	Bromoform	0.3217	0.2750	17.10	20	-15	#
	Isopropylbenzene	2.0355	1.9500	19.16	20	-4	
	Cyclohexanone	0.4991	0.4315	432.24	500	-14	
#	1,1,2,2-Tetrachloroethane	1.1766	1.1157	18.96	20	-5	#
	trans-1,4-Dichloro-2-Butene	0.4050	0.3970	98.03	100	-2	
	Bromobenzene	0.9187	0.8579	18.68	20	-7	
	1,2,3-Trichloropropane	0.3800	0.3443	18.12	20	-9	
	n-Propylbenzene	4.0509	3.9162	19.33	20	-3	
	2-Chlorotoluene	0.8456	0.7913	18.71	20	-6	
	1,3,5-Trimethylbenzene	2.9954	2.8406	18.97	20	-5	
	4-Chlorotoluene	0.8848	0.8206	18.55	20	-7	
	tert-Butylbenzene	0.6782	0.6435	18.98	20	-5	
	Pentachloroethane	0.5338	0.4899	18.36	20	-8	
	1,2,4-Trimethylbenzene	3.0840	2.8745	18.64	20	-7	
	sec-Butylbenzene	3.7267	3.5486	19.04	20	-5	
	p-Isopropyltoluene	3.3458	3.2015	19.14	20	-4	
	1,3-Dichlorobenzene	1.7563	1.6407	18.68	20	-7	
	1,4-Dichlorobenzene	1.8042	1.6620	18.42	20	-8	
	1,2,3-Trimethylbenzene	3.1335	3.1111	19.86	20	-1	
	Benzyl Chloride	2.4348	2.1951	18.03	20	-10	
	1,3-Diethylbenzene	1.9970	1.9538	19.57	20	-2	
	1,4-Diethylbenzene	2.0699	2.0427	19.74	20	-1	
	n-Butylbenzene	1.6359	1.5299	18.70	20	-6	
	1,2-Dichlorobenzene	1.6835	1.5844	18.82	20	-6	
	1,2-Diethylbenzene	1.6788	1.6309	19.43	20	-3	
	1,2-Dibromo-3-Chloropropane	0.3257	0.2869	17.62	20	-12	
	1,3,5-Trichlorobenzene	1.3943	1.2980	18.62	20	-7	
	1,2,4-Trichlorobenzene	1.3114	1.2328	18.80	20	-6	
	Hexachlorobutadiene	0.6540	0.5824	17.81	20	-11	
	Naphthalene	4.2373	4.0274	19.01	20	-5	
	1,2,3-Trichlorobenzene	1.2931	1.1795	18.24	20	-9	
	2-Methylnaphthalene	2.5937	2.4625	18.99	20	-5	

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 07/10/12 Time: 14:55

Lab File ID: yl10v02.d Init. Calib. Date(s): 07/10/12 07/10/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT

Average %Drift 7

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 09/04/12 Time: 00:19

Lab File ID: ys03c01.d Init. Calib. Date(s): 07/10/12 07/10/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Dichlorodifluoromethane	0.4017	0.4178	52.01	50	4	
#	Chloromethane	0.4216	0.3514	41.68	50	-17	#
*	Vinyl Chloride	0.3967	0.3239	40.82	50	-18	*
	Bromomethane	0.2431	0.2261	46.51	50	-7	
	Chloroethane	0.2063	0.1753	42.47	50	-15	
	Trichlorofluoromethane	0.4227	0.4861	57.50	50	15	
	Ethyl Ether	0.2489	0.1897	38.12	50	-24	
	Acrolein	1.7124	1.4089	411.38	500	-18	
*	1,1-Dichloroethene	0.2240	0.2240	49.99	50	0	*
	Freon 113	0.2441	0.2444	50.07	50	0	
	Acetone	0.0580	0.0508	87.59	100	-12	
	Methyl Iodide	0.4262	0.4519	53.01	50	6	
	2-Propanol	0.6270	0.6208	247.55	250	-1	
	Carbon Disulfide	0.7055	0.6769	47.98	50	-4	
	Allyl Chloride	0.4242	0.3423	40.34	50	-19	
	Methyl Acetate	0.4118	0.3832	46.52	50	-7	
	Methylene Chloride	0.2750	0.2577	46.86	50	-6	
	t-Butyl Alcohol	1.4095	1.0381	184.12	250	-26	
	Acrylonitrile	0.2259	0.1814	40.16	50	-20	
	trans-1,2-Dichloroethene	0.2695	0.2584	47.94	50	-4	
	Methyl Tertiary Butyl Ether	0.9744	0.9163	47.02	50	-6	
	n-Hexane	0.4726	0.3295	34.86	50	-30	
	1,2-Dichloroethene (total)	0.2864	0.2769	96.65	100	-3	
#	1,1-Dichloroethane	0.5309	0.4881	45.97	50	-8	#
	di-Isopropyl Ether	1.0441	0.8049	38.55	50	-23	
	2-Chloro-1,3-Butadiene	0.4772	0.4332	45.39	50	-9	
	Ethyl t-Butyl Ether	0.9881	0.8662	43.83	50	-12	
	cis-1,2-Dichloroethene	0.3032	0.2954	48.71	50	-3	
	2-Butanone	0.3336	0.2663	79.82	100	-20	
	2,2-Dichloropropane	0.4149	0.4383	52.81	50	6	
	Propionitrile	1.5255	1.3749	225.31	250	-10	
	Methacrylonitrile	0.2157	0.1948	112.87	125	-10	
	Bromochloromethane	0.1570	0.1591	50.68	50	1	
	Tetrahydrofuran	1.4113	1.3194	93.49	100	-7	
*	Chloroform	0.5107	0.5315	52.04	50	4	*
	1,1,1-Trichloroethane	0.4754	0.4661	49.02	50	-2	

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 09/04/12 Time: 00:19

Lab File ID: ys03c01.d Init. Calib. Date(s): 07/10/12 07/10/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Cyclohexane	0.5426	0.4384	40.40	50	-19	
	Cyclohexane(mz 84)	0.4391	0.3935	44.81	50	-10	
	Cyclohexane(mz 69)	0.1617	0.1383	42.79	50	-14	
	1,1-Dichloropropene	0.4017	0.3939	49.03	50	-2	
	Carbon Tetrachloride	0.3500	0.4130	59.01	50	18	
	Isobutyl Alcohol	0.4250	0.3539	520.40	625	-17	
	Benzene	1.1786	1.1331	48.07	50	-4	
	1,2-Dichloroethane	0.4417	0.4646	52.59	50	5	
	1,2-Dichloroethane(mz 98)	0.0373	0.0369	49.58	50	-1	
	t-Amyl Methyl Ether	0.9206	0.8477	46.04	50	-8	
	n-Heptane	0.5629	0.3735	33.18	50	-34	
	n-Butanol	0.3851	0.3135	1017.55	1250	-19	
	Trichloroethene	0.2998	0.3031	50.56	50	1	
*	1,2-Dichloropropane	0.3216	0.2911	45.26	50	-9	*
	Methylcyclohexane(mz98)	0.2387	0.2166	45.35	50	-9	
	Methylcyclohexane	0.5362	0.4698	43.81	50	-12	
	Methyl Methacrylate	0.3435	0.3023	43.99	50	-12	
	Dibromomethane	0.2031	0.2095	51.58	50	3	
	1,4-Dioxane	0.1021	0.0973	595.35	625	-5	
	Bromodichloromethane	0.3592	0.3894	54.21	50	8	
	2-Nitropropane	0.1565	0.1540	98.41	100	-2	
	2-Chloroethyl Vinyl Ether	0.2695	0.2369	43.95	50	-12	
	cis-1,3-Dichloropropene	0.4706	0.4665	49.56	50	-1	
	4-Methyl-2-Pentanone	0.6246	0.5343	85.54	100	-14	
*	Toluene	1.0395	0.9790	47.09	50	-6	*
	trans-1,3-Dichloropropene	0.6380	0.6137	48.10	50	-4	
	Ethyl Methacrylate	0.7468	0.6052	40.52	50	-19	
	1,1,2-Trichloroethane	0.3971	0.3880	48.86	50	-2	
	Tetrachloroethene	0.4775	0.4785	50.10	50	0	
	1,3-Dichloropropane	0.7111	0.6685	47.00	50	-6	
	2-Hexanone	0.7038	0.5844	83.02	100	-17	
	Dibromochloromethane	0.3902	0.4265	54.66	50	9	
	1,2-Dibromoethane	0.4367	0.4332	49.60	50	-1	
#	Chlorobenzene	1.1718	1.1730	50.05	50	0	#
	1,1,1,2-Tetrachloroethane	0.3872	0.4243	54.78	50	10	
*	Ethylbenzene	2.0299	1.9814	48.81	50	-2	*

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 09/04/12 Time: 00:19

Lab File ID: ys03c01.d Init. Calib. Date(s): 07/10/12 07/10/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	m+p-Xylene	0.7907	0.7842	99.18	100	-1	
	Xylene (Total)	0.7875	0.7794	148.44	150	-1	
	o-Xylene	0.7813	0.7696	49.25	50	-1	
	Styrene	1.3320	1.2508	46.95	50	-6	
#	Bromoform	0.3217	0.3545	55.10	50	10	#
	Isopropylbenzene	2.0355	2.0591	50.58	50	1	
	Cyclohexanone	0.4991	0.3339	418.12	625	-33	
#	1,1,2,2-Tetrachloroethane	1.1766	1.0505	44.64	50	-11	#
	trans-1,4-Dichloro-2-Butene	0.4050	0.3328	102.72	125	-18	
	Bromobenzene	0.9187	0.8727	47.50	50	-5	
	1,2,3-Trichloropropane	0.3800	0.3622	47.66	50	-5	
	n-Propylbenzene	4.0509	3.8154	47.09	50	-6	
	2-Chlorotoluene	0.8456	0.8132	48.08	50	-4	
	1,3,5-Trimethylbenzene	2.9954	2.8691	47.89	50	-4	
	4-Chlorotoluene	0.8848	0.8508	48.08	50	-4	
	tert-Butylbenzene	0.6782	0.6507	47.97	50	-4	
	Pentachloroethane	0.5338	0.5441	50.96	50	2	
	1,2,4-Trimethylbenzene	3.0840	2.9635	48.05	50	-4	
	sec-Butylbenzene	3.7267	3.5337	47.41	50	-5	
	p-Isopropyltoluene	3.3458	3.1952	47.75	50	-5	
	1,3-Dichlorobenzene	1.7563	1.6722	47.61	50	-5	
	1,4-Dichlorobenzene	1.8042	1.7673	48.98	50	-2	
	1,2,3-Trimethylbenzene	3.1335	2.9562	47.17	50	-6	
	Benzyl Chloride	2.4348	2.2288	45.77	50	-8	
	1,3-Diethylbenzene	1.9970	1.8240	45.67	50	-9	
	1,4-Diethylbenzene	2.0699	1.8990	45.87	50	-8	
	n-Butylbenzene	1.6359	1.5304	46.78	50	-6	
	1,2-Dichlorobenzene	1.6835	1.6696	49.59	50	-1	
	1,2-Diethylbenzene	1.6788	1.5785	47.01	50	-6	
	1,2-Dibromo-3-Chloropropane	0.3257	0.3181	48.83	50	-2	
	1,3,5-Trichlorobenzene	1.3943	1.3812	49.53	50	-1	
	1,2,4-Trichlorobenzene	1.3114	1.2552	47.86	50	-4	
	Hexachlorobutadiene	0.6540	0.6033	46.12	50	-8	
	Naphthalene	4.2373	4.0965	48.34	50	-3	
	1,2,3-Trichlorobenzene	1.2931	1.2151	46.98	50	-6	
	2-Methylnaphthalene	2.5937	2.0704	39.91	50	-20	

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 09/04/12 Time: 00:19

Lab File ID: ys03c01.d Init. Calib. Date(s): 07/10/12 07/10/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dibromofluoromethane	0.2311	0.2482	53.70	50	7
Dibromofluoromethane(mz111)	0.2360	0.2517	53.33	50	7
1,2-Dichloroethane-d4	0.0604	0.0630	52.10	50	4
1,2-Dichloroethane-d4(mz104)	0.0384	0.0389	50.73	50	1
Toluene-d8(mz100)	0.9092	0.8621	47.41	50	-5
1,2-Dichloroethane-d4(mz65)	0.3063	0.3481	56.83	50	14
4-Bromofluorobenzene(mz174)	0.4414	0.4711	53.37	50	7
Toluene-d8	1.3612	1.3197	48.47	50	-3
4-Bromofluorobenzene	0.5080	0.5176	50.94	50	2

Average %Drift 8

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP09355.i/12jul10i.b/yl10i17.d
/chem2/HP09355.i/12jul10i.b/yl10i16.d
/chem2/HP09355.i/12jul10i.b/yl10i15.d
/chem2/HP09355.i/12jul10i.b/yl10i14.d
/chem2/HP09355.i/12jul10i.b/yl10i13.d
/chem2/HP09355.i/12jul10i.b/yl10i12.d
/chem2/HP09355.i/12jul10i.b/yl10i11.d

File /chem2/HP09355.i/12jul10i.b/yl10i13.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP09355.i/12sep03b.b/ys03c01.d

RT Summary

Internal Standard Name	File ID: ys03c01.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	2.048	2.042	Yes
Fluorobenzene	4.153	4.147	Yes
Chlorobenzene-d5	7.335	7.329	Yes
1,4-Dichlorobenzene-d4	9.354	9.354	Yes

A "No" indicates the retention time is greater than 30 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ys03c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	264292	375285	187642	750570	Yes
Fluorobenzene	898772	1221798	610899	2443596	Yes
Chlorobenzene-d5	690476	888114	444057	1776228	Yes
1,4-Dichlorobenzene-d4	439913	523859	261930	1047718	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 09/04/2012 at 00:47

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_PTL07___

Lab File ID (Standard): ys03c01.d Date Analyzed: 09/04/12

Instrument ID: HP09355 Time Analyzed: 00:19

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1(FBZ)		IS2(CBZ)		IS3(DCB)		IS4(TBA)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	898772	4.153	690476	7.334	439913	9.354	264292	2.048
	UPPER LIMIT	1797544	4.653	1380952	7.834	879826	9.854	528584	2.548
	LOWER LIMIT	449386	3.653	345238	6.834	219956	8.854	132146	1.548
	LAB SAMPLE ID								
01	VBLKY65	955740	4.147	702231	7.335	411322	9.354	333387	2.054
02	LCSY65	1043907	4.141	782398	7.328	480543	9.354	318863	2.036
03	LCDY65	1074643	4.147	799537	7.328	479927	9.354	299172	2.048
04	6769939	1065040	4.147	776265	7.335	461258	9.360	358325	2.048
05	6769616	1033664	4.147	753329	7.335	438368	9.354		
06	6769617	1001753	4.147	733387	7.329	427516	9.354		
07	6769618	973921	4.147	713009	7.328	416252	9.354		
08	6769619	959278	4.141	707041	7.328	414744	9.354		
09	6769620	920690	4.141	668056	7.328	392160	9.354		
10	6769621	643754	4.135	544611	7.328	369904	9.354		
11	6769936DL	888537	4.147	659068	7.328	383089	9.354	280877	2.054
12	6771415DL2	879459	4.147	651416	7.328	387782	9.354	276760	2.042
13	6773615	937191	4.147	649015	7.341	440513	9.354	298418	2.036
14	6773615DL	919613	4.141	678805	7.329	411448	9.354	293178	2.048
15	6766763	893306	4.135	660182	7.328	390493	9.354	295831	2.030
16	6766764	881899	4.135	648413	7.328	384409	9.354	306557	2.042
17	6766765	863599	4.141	635722	7.328	376119	9.354	282617	2.036
18	6766766	857004	4.141	630106	7.329	363068	9.354	288197	2.048
19	6766767	843169	4.141	618224	7.328	366144	9.354	280287	2.054
20	6766768	836349	4.135	621031	7.329	366927	9.354	288897	2.042
21	6766769	812250	4.141	602464	7.328	356532	9.354	266449	2.054

IS1 (FBZ)=Fluorobenzene
IS2 (CBZ)=Chlorobenzene-d5
IS3 (DCB)=1,4-Dichlorobenzene-d4
IS4 (TBA)=t-Butyl Alcohol-d10

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

Sample Data

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LOQ/MDL Summary
GC/MS Volatiles

SDG: PTL07

Fraction: Volatiles by GC/MS

10903: Volatiles by 8260 Analyte Name	Default MDL	Default LOQ	Units
Dichlorodifluoromethane	2	5	ug/l
Chloromethane	1	5	ug/l
Vinyl Chloride	1	5	ug/l
Bromomethane	1	5	ug/l
Chloroethane	1	5	ug/l
Trichlorofluoromethane	2	5	ug/l
1,1-Dichloroethene	0.8	5	ug/l
Acetone	6	20	ug/l
Methylene Chloride	2	5	ug/l
trans-1,2-Dichloroethene	0.8	5	ug/l
Methyl Tertiary Butyl Ether	0.5	5	ug/l
1,1-Dichloroethane	1	5	ug/l
2-Butanone	3	10	ug/l
cis-1,2-Dichloroethene	0.8	5	ug/l
2,2-Dichloropropane	1	5	ug/l
Bromochloromethane	1	5	ug/l
Chloroform	0.8	5	ug/l
1,1,1-Trichloroethane	0.8	5	ug/l
1,1-Dichloropropene	1	5	ug/l
Carbon Tetrachloride	1	5	ug/l
Benzene	0.5	5	ug/l
1,2-Dichloroethane	1	5	ug/l
Trichloroethene	1	5	ug/l
1,2-Dichloropropane	1	5	ug/l
Dibromomethane	1	5	ug/l
Bromodichloromethane	1	5	ug/l
cis-1,3-Dichloropropene	1	5	ug/l
4-Methyl-2-pentanone	3	10	ug/l
Toluene	0.7	5	ug/l
trans-1,3-Dichloropropene	1	5	ug/l
1,1,2-Trichloroethane	0.8	5	ug/l
Tetrachloroethene	0.8	5	ug/l
1,3-Dichloropropane	1	5	ug/l
Dibromochloromethane	1	5	ug/l
1,2-Dibromoethane	1	5	ug/l
Chlorobenzene	0.8	5	ug/l
1,1,1,2-Tetrachloroethane	1	5	ug/l
Ethylbenzene	0.8	5	ug/l
m+p-Xylene	0.8	5	ug/l
o-Xylene	0.8	5	ug/l
Styrene	1	5	ug/l
Bromoform	1	5	ug/l
Isopropylbenzene	1	5	ug/l
Bromobenzene	1	5	ug/l
1,1,2,2-Tetrachloroethane	1	5	ug/l
1,2,3-Trichloropropane	1	5	ug/l
n-Propylbenzene	1	5	ug/l

Fraction: Volatiles by GC/MS

10903: Volatiles by 8260 Analyte Name	Default MDL	Default LOQ	Units
2-Chlorotoluene	1	5	ug/l
1,3,5-Trimethylbenzene	1	5	ug/l
4-Chlorotoluene	1	5	ug/l
tert-Butylbenzene	1	5	ug/l
1,2,4-Trimethylbenzene	1	5	ug/l
sec-Butylbenzene	1	5	ug/l
1,3-Dichlorobenzene	1	5	ug/l
p-Isopropyltoluene	1	5	ug/l
1,4-Dichlorobenzene	1	5	ug/l
n-Butylbenzene	1	5	ug/l
1,2-Dichlorobenzene	1	5	ug/l
1,2-Dibromo-3-chloropropane	2	5	ug/l
1,2,4-Trichlorobenzene	1	5	ug/l
Hexachlorobutadiene	2	5	ug/l
Naphthalene	1	5	ug/l
1,2,3-Trichlorobenzene	1	5	ug/l

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766763

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s42.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	20	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	10	U
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766763

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s42.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766763

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s42.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

S1PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6766763

Data file: /chem2/HP09355.i/12sep03b.b/ys03s42.d
Injection date and time: **04-SEP-2012 07:26**
Data file Sample Info. Line: S1PAT;6766763;1;0;;PTL07;PLM;;ys03b05;
Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
28) t-Butyl Alcohol-d10	2.030(0.018)	197	65	295831 (12)	250.00	
71) Fluorobenzene	4.135(0.018)	543	96	893306 (-1)	50.00	
106) Chlorobenzene-d5	7.329(0.006)	1068	117	660182 (-4)	50.00	
136) 1,4-Dichlorobenzene-d4	9.354(0.000)	1401	152	390493 (-11)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(1)	3.496(-0.001)	113	220628	53.427	107%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	3.806(-0.001)	102	55678	51.565	103%		77 - 113
93) Toluene-d8	(2)	5.765(0.000)	98	870433	48.430	97%		80 - 113
119) 4-Bromofluorobenzene	(2)	8.442(-0.001)	95	313872	46.790	94%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
5) Vinyl Chloride	(1)			Not Detected					1	5
7) Bromomethane	(1)			Not Detected					1	5
8) Chloroethane	(1)			Not Detected					1	5
10) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.8	5
17) Acetone	(1)			Not Detected					6	20
26) Methylene Chloride	(1)			Not Detected					2	5
31) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
32) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
34) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
41) 2-Butanone	(1)			Not Detected					3	10
42) 2,2-Dichloropropane	(1)			Not Detected					1	5
47) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)			Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
57) 1,1-Dichloropropene	(1)			Not Detected					1	5
58) Carbon Tetrachloride	(1)			Not Detected					1	5
63) Benzene	(1)			Not Detected					0.5	5
65) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
77) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
83) Bromodichloromethane	(1)			Not Detected					1	5
87) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
89) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
94) Toluene	(2)			Not Detected					0.7	5
95) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
97) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

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S1PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6766763

Data file: /chem2/HP09355.i/12sep03b.b/ys03s42.d Injection date and time: **04-SEP-2012 07:26**
Data file Sample Info. Line: S1PAT;6766763;1;0;;PTL07;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
98) Tetrachloroethene	(2)			Not Detected					0.8	5
99) 1,3-Dichloropropane	(2)			Not Detected					1	5
102) Dibromochloromethane	(2)			Not Detected					1	5
104) 1,2-Dibromoethane	(2)			Not Detected					1	5
107) Chlorobenzene	(2)			Not Detected					0.8	5
108) 1,1,1,2-Tetrachloroethane	(2)			Not Detected					1	5
109) Ethylbenzene	(2)			Not Detected					0.8	5
110) m+p-Xylene	(2)			Not Detected					0.8	5
112) Xylene (Total)	(2)			Not Detected					0.8	5
113) o-Xylene	(2)			Not Detected					0.8	5
114) Styrene	(2)			Not Detected					1	5
115) Bromoform	(2)			Not Detected					1	5
116) Isopropylbenzene	(2)			Not Detected					1	5
122) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					1	5
121) Bromobenzene	(3)			Not Detected					1	5
123) 1,2,3-Trichloropropane	(3)			Not Detected					1	5
125) n-Propylbenzene	(3)			Not Detected					1	5
126) 2-Chlorotoluene	(3)			Not Detected					1	5
127) 1,3,5-Trimethylbenzene	(3)			Not Detected					1	5
128) 4-Chlorotoluene	(3)			Not Detected					1	5
130) tert-Butylbenzene	(3)			Not Detected					1	5
132) 1,2,4-Trimethylbenzene	(3)			Not Detected					1	5
133) sec-Butylbenzene	(3)			Not Detected					1	5
135) p-Isopropyltoluene	(3)			Not Detected					1	5
134) 1,3-Dichlorobenzene	(3)			Not Detected					1	5
138) 1,4-Dichlorobenzene	(3)			Not Detected					1	5
145) n-Butylbenzene	(3)			Not Detected					1	5
144) 1,2-Dichlorobenzene	(3)			Not Detected					1	5
148) 1,2-Dibromo-3-Chloropropane	(3)			Not Detected					2	5
150) 1,2,4-Trichlorobenzene	(3)			Not Detected					1	5
151) Hexachlorobutadiene	(3)			Not Detected					2	5
152) Naphthalene	(3)			Not Detected					1	5
153) 1,2,3-Trichlorobenzene	(3)			Not Detected					1	5

Total number of targets = 64

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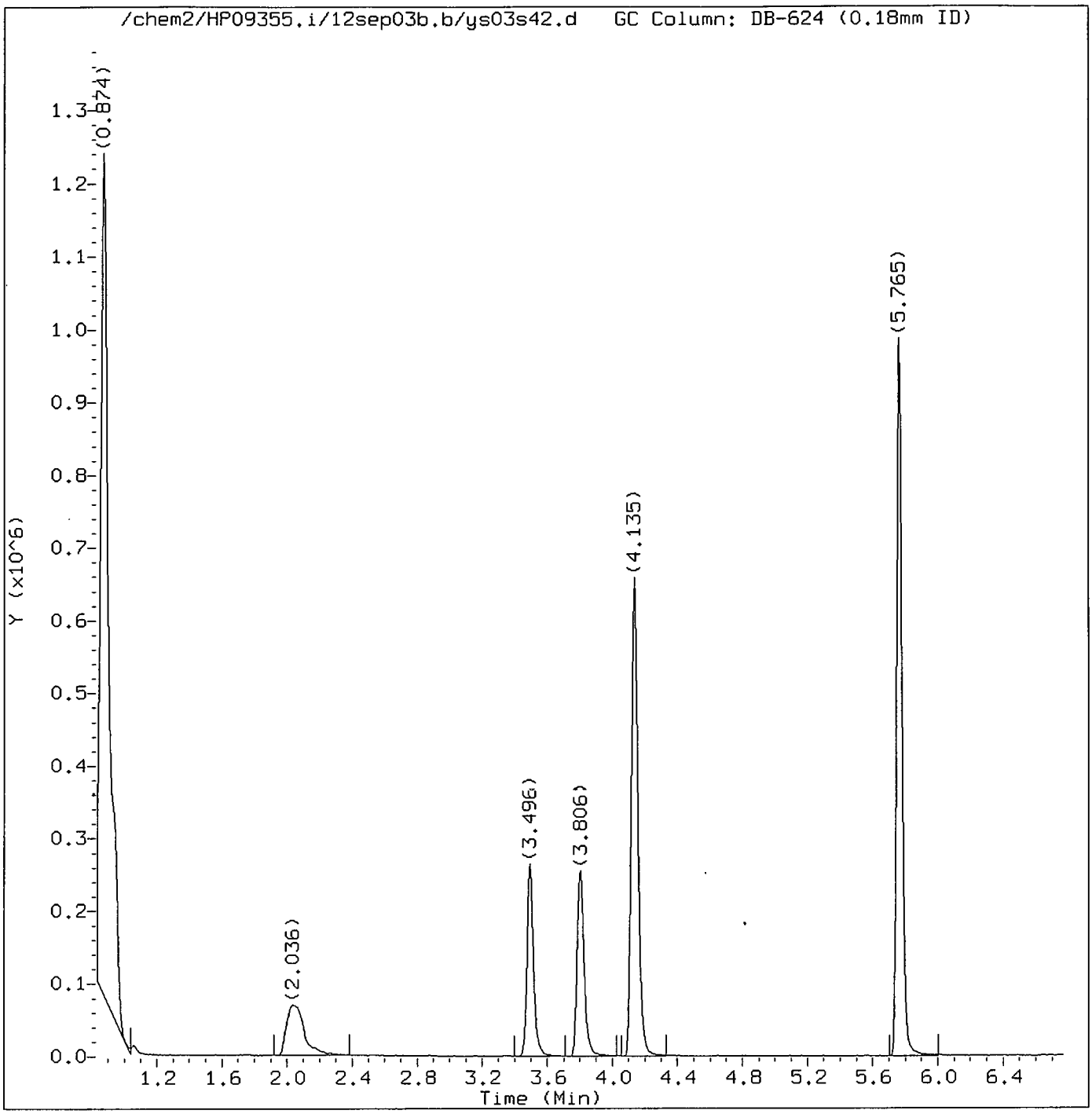
Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

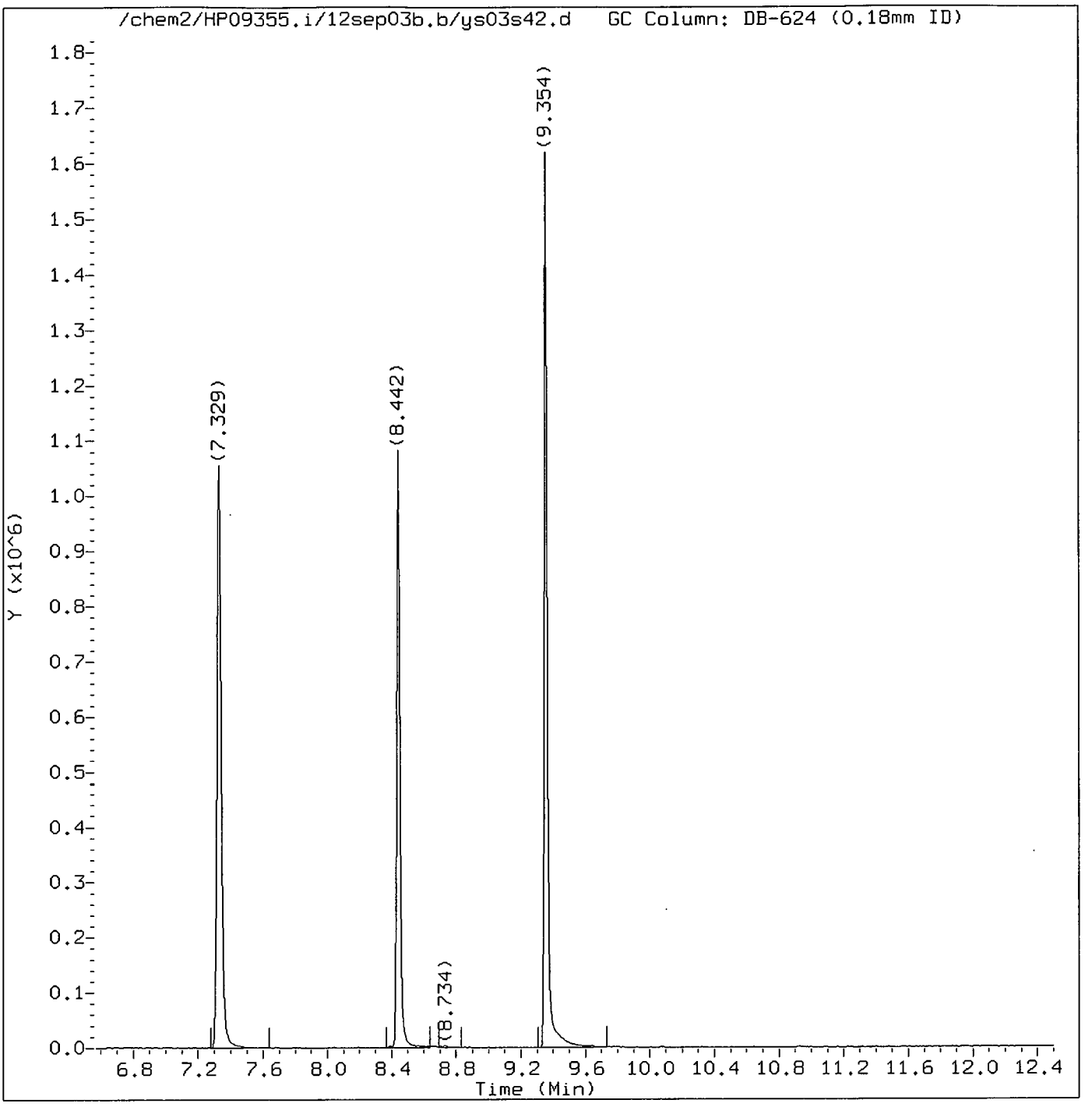
Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s42.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 07:26 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Sample Name: S1PAT Lab Sample ID: 6766763

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:20.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s42.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 07:26 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Sample Name: S1PAT Lab Sample ID: 6766763

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:20.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s42.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 07:26 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Sample Name: S1PAT Lab Sample ID: 6766763

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
28)*t-Butyl Alcohol-d10	(4)	2.030	65	295831	250.000
52)$Dibromofluoromethane	(1)	3.496	113	220628	53.427
62)$1,2-Dichloroethane-d4	(1)	3.806	102	55678	51.565
71)*Fluorobenzene	(1)	4.135	96	893306	50.000
93)$Toluene-d8	(2)	5.765	98	870433	48.430
106)*Chlorobenzene-d5	(2)	7.329	117	660182	50.000
119)$4-Bromofluorobenzene	(2)	8.442	95	313872	46.790
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	390493	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:20.
Target 3.5 esignature user ID: ads01731

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P1PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766764

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s43.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	20	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	10	U
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	3	J
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P1PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766764

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s43.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108-86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P1PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766764

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s43.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

P1PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6766764

Data file: /chem2/HP09355.i/12sep03b.b/ys03s43.d
Injection date and time: **04-SEP-2012 07:47**
Data file Sample Info. Line: P1PAT;6766764;1;0;;PTL07;PLM;;ys03b05;
Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
28) t-Butyl Alcohol-d10	2.042(0.006)	199	65	306557 (16)	250.00	
71) Fluorobenzene	4.135(0.018)	543	96	881899 (-2)	50.00	
106) Chlorobenzene-d5	7.329(0.006)	1068	117	648413 (-6)	50.00	
136) 1,4-Dichlorobenzene-d4	9.354(0.000)	1401	152	384409 (-13)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(1)	3.496(-0.001)	113	220365	54.053	108%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	3.806(-0.001)	102	54827	51.434	103%		77 - 113
93) Toluene-d8	(2)	5.765(0.000)	98	850086	48.156	96%		80 - 113
119) 4-Bromofluorobenzene	(2)	8.442(-0.001)	95	304466	46.212	92%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
5) Vinyl Chloride	(1)			Not Detected					1	5
7) Bromomethane	(1)			Not Detected					1	5
8) Chloroethane	(1)			Not Detected					1	5
10) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.8	5
17) Acetone	(1)			Not Detected					6	20
26) Methylene Chloride	(1)			Not Detected					2	5
31) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
32) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
34) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
41) 2-Butanone	(1)			Not Detected					3	10
42) 2,2-Dichloropropane	(1)			Not Detected					1	5
47) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)	3.350(-0.000)	83	22739	2.524	2.52		J	0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
57) 1,1-Dichloropropene	(1)			Not Detected					1	5
58) Carbon Tetrachloride	(1)			Not Detected					1	5
63) Benzene	(1)			Not Detected					0.5	5
65) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
77) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
83) Bromodichloromethane	(1)			Not Detected					1	5
87) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
89) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
94) Toluene	(2)			Not Detected					0.7	5
95) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
97) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

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P1PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6766764

Data file: /chem2/HP09355.i/12sep03b.b/ys03s43.d
Data file Sample Info. Line: P1PAT;6766764;1;0;;PTL07;PLM;;ys03b05;
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Injection date and time: **04-SEP-2012 07:47**
Instrument ID: **HP09355.i** Batch: **Y122472AA**

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

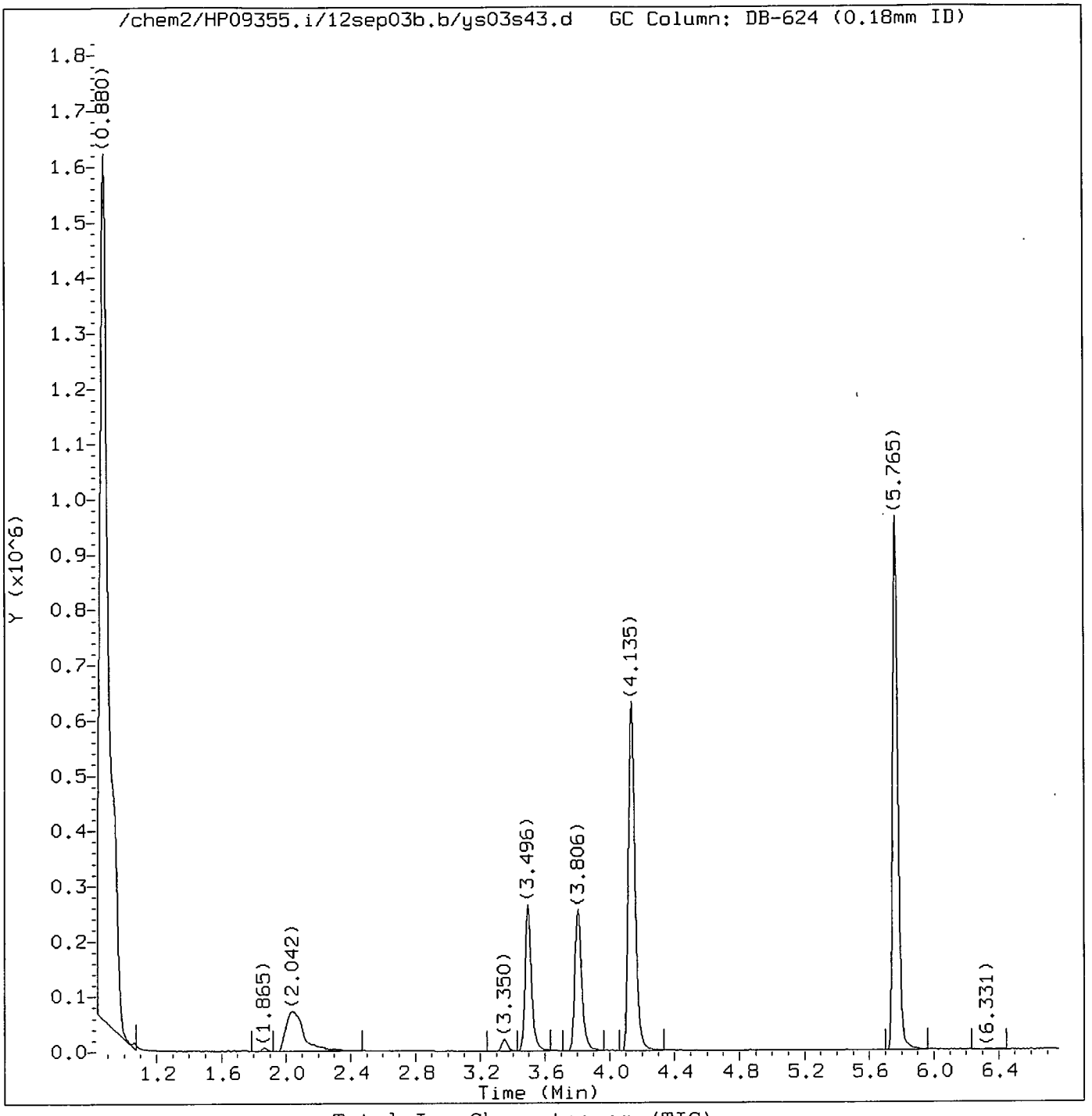
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
98) Tetrachloroethene	(2)			Not Detected					0.8	5
99) 1,3-Dichloropropane	(2)			Not Detected					1	5
102) Dibromochloromethane	(2)			Not Detected					1	5
104) 1,2-Dibromoethane	(2)			Not Detected					1	5
107) Chlorobenzene	(2)			Not Detected					0.8	5
108) 1,1,1,2-Tetrachloroethane	(2)			Not Detected					1	5
109) Ethylbenzene	(2)			Not Detected					0.8	5
110) m+p-Xylene	(2)			Not Detected					0.8	5
112) Xylene (Total)	(2)			Not Detected					0.8	5
113) o-Xylene	(2)			Not Detected					0.8	5
114) Styrene	(2)			Not Detected					1	5
115) Bromoform	(2)			Not Detected					1	5
116) Isopropylbenzene	(2)			Not Detected					1	5
122) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					1	5
121) Bromobenzene	(3)			Not Detected					1	5
123) 1,2,3-Trichloropropane	(3)			Not Detected					1	5
125) n-Propylbenzene	(3)			Not Detected					1	5
126) 2-Chlorotoluene	(3)			Not Detected					1	5
127) 1,3,5-Trimethylbenzene	(3)			Not Detected					1	5
128) 4-Chlorotoluene	(3)			Not Detected					1	5
130) tert-Butylbenzene	(3)			Not Detected					1	5
132) 1,2,4-Trimethylbenzene	(3)			Not Detected					1	5
133) sec-Butylbenzene	(3)			Not Detected					1	5
135) p-Isopropyltoluene	(3)			Not Detected					1	5
134) 1,3-Dichlorobenzene	(3)			Not Detected					1	5
138) 1,4-Dichlorobenzene	(3)			Not Detected					1	5
145) n-Butylbenzene	(3)			Not Detected					1	5
144) 1,2-Dichlorobenzene	(3)			Not Detected					1	5
148) 1,2-Dibromo-3-Chloropropane	(3)			Not Detected					2	5
150) 1,2,4-Trichlorobenzene	(3)			Not Detected					1	5
151) Hexachlorobutadiene	(3)			Not Detected					2	5
152) Naphthalene	(3)			Not Detected					1	5
153) 1,2,3-Trichlorobenzene	(3)			Not Detected					1	5

Total number of targets = 64

Digitally signed by Angela D. Sneeringer on 09/04/2012 at 13:20. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

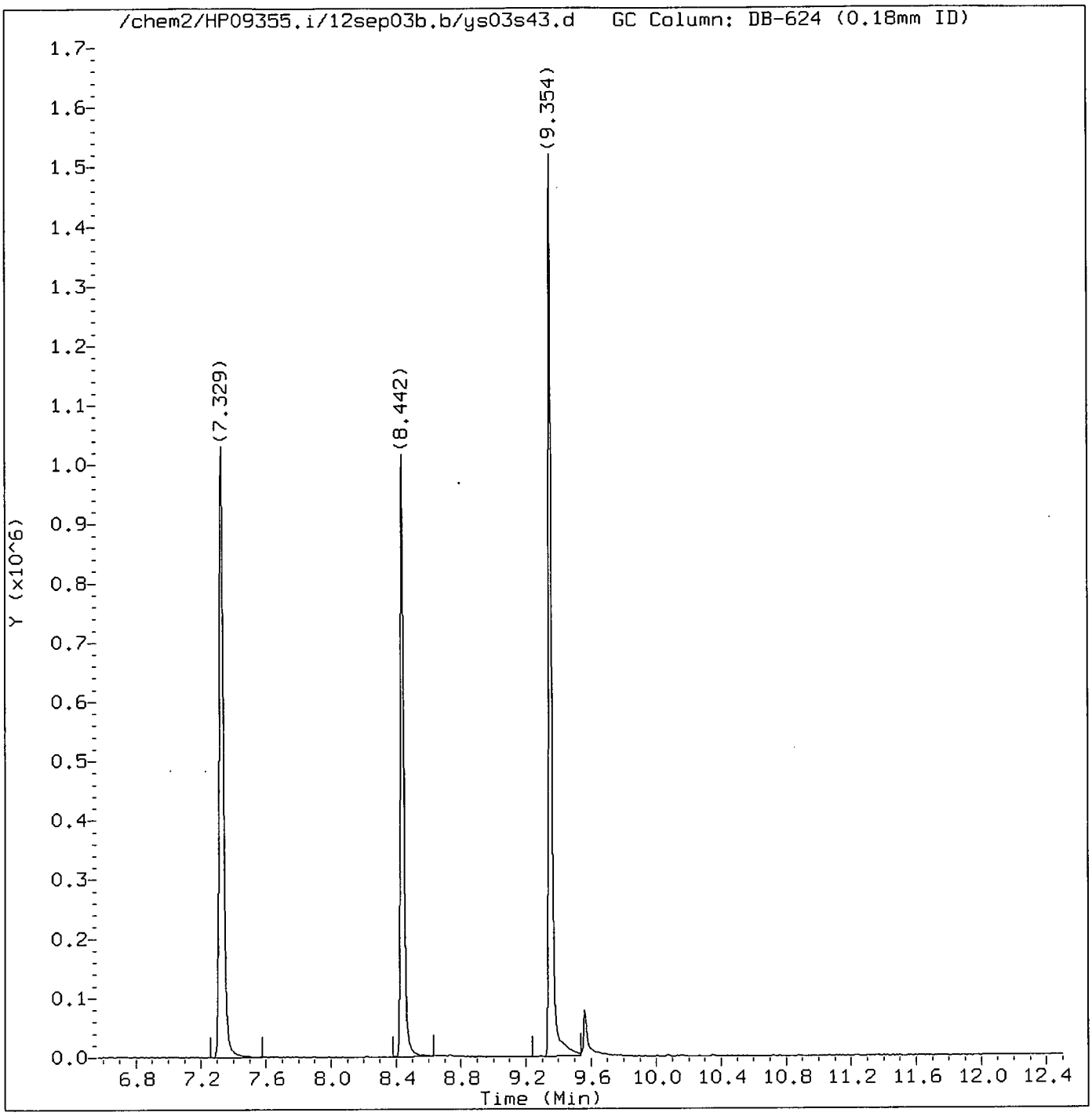
Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s43.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 07:47 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Sample Name: P1PAT Lab Sample ID: 6766764

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:20.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s43.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 07:47 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Sample Name: P1PAT Lab Sample ID: 6766764

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:20.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s43.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 07:47 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Sample Name: P1PAT Lab Sample ID: 6766764

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
28)*t-Butyl Alcohol-d10	(4)	2.042	65	306557	250.000
50) Chloroform	(1)	3.350	83	22739	2.524
52)$Dibromofluoromethane	(1)	3.496	113	220365	54.053
62)$1,2-Dichloroethane-d4	(1)	3.806	102	54827	51.434
71)*Fluorobenzene	(1)	4.135	96	881899	50.000
93)$Toluene-d8	(2)	5.765	98	850086	48.156
106)*Chlorobenzene-d5	(2)	7.329	117	648413	50.000
119)$4-Bromofluorobenzene	(2)	8.442	95	304466	46.212
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	384409	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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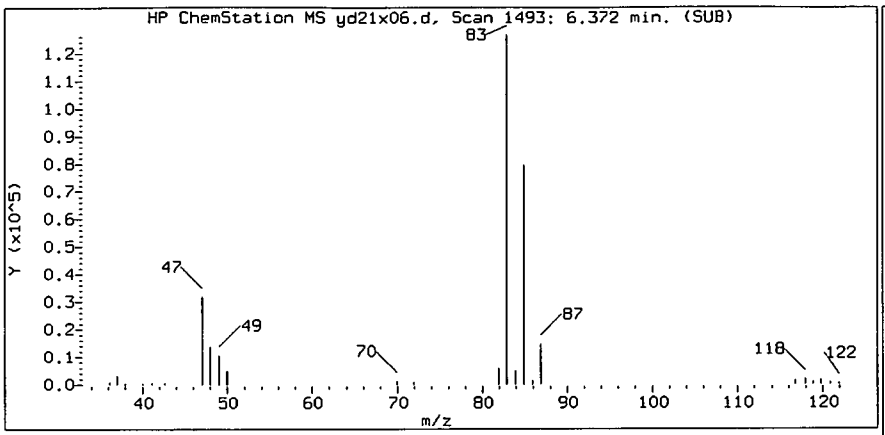
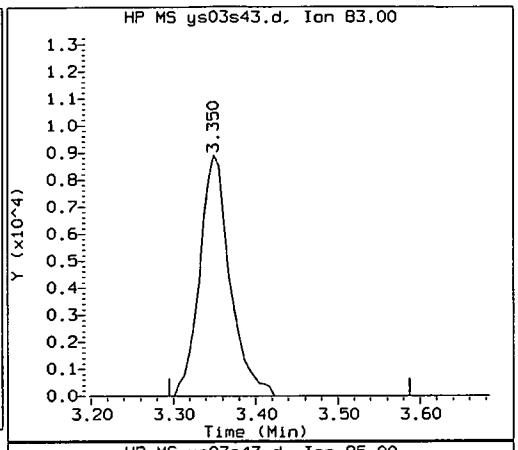
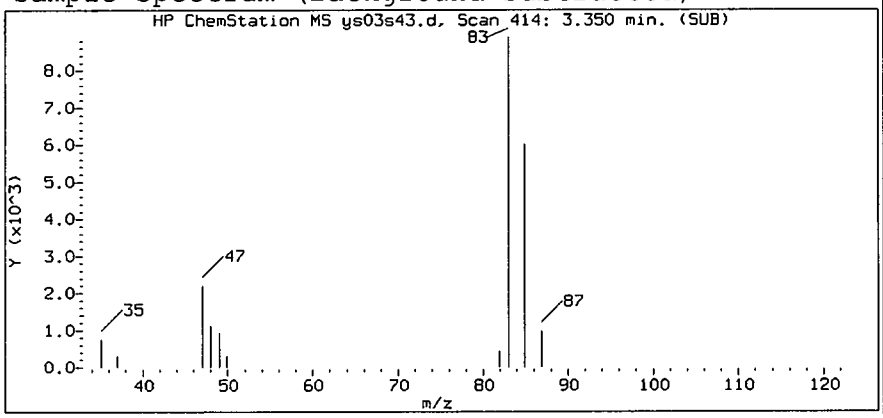
on 09/04/2012 at 13:20.
Target 3.5 esignature user ID: ads01731

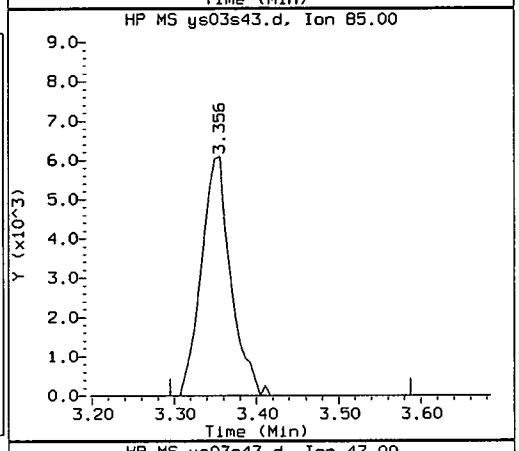
Reference Standard Spectrum for Chloroform



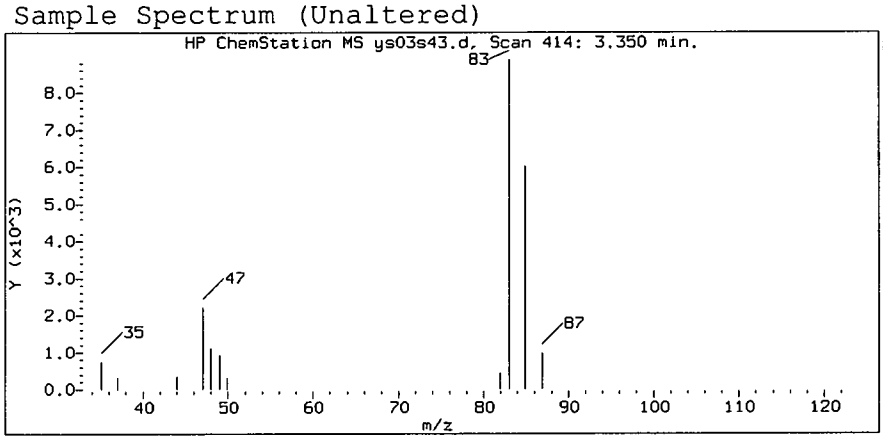


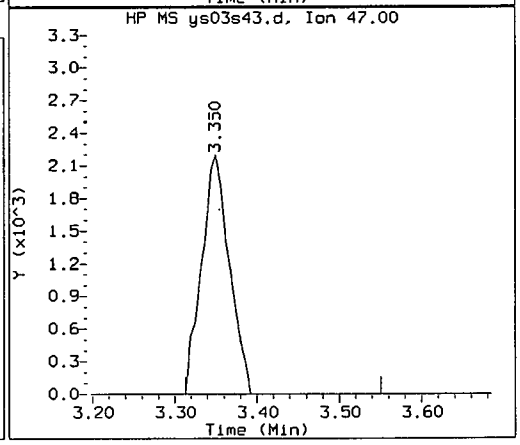
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/12sep03b.b/ys03s43.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 07:47 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:14 ads01731

Sample Name: P1PAT Lab Sample ID: 6766764

Compound Number	: 50
Compound Name	: Chloroform
Scan Number	: 414
Retention Time (minutes)	: 3.350
Relative Retention Time	:-0.00063
Quant Ion	: 83.00
Area (flag)	: 22739
On-Column Amount (ng)	: 2.5244

Digitally signed by Angela D. Sneeringer on 09/04/2012 at 13:20.
Target 3.5 esignature user ID: ads01731

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S2PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766765

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s44.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
75-71-8	Dichlorodifluoromethane		5	U
74-87-3	Chloromethane		5	U
75-01-4	Vinyl Chloride		5	U
74-83-9	Bromomethane		5	U
75-00-3	Chloroethane		5	U
75-69-4	Trichlorofluoromethane		5	U
75-35-4	1,1-Dichloroethene		5	U
67-64-1	Acetone		20	U
75-09-2	Methylene Chloride		5	U
156-60-5	trans-1,2-Dichloroethene		5	U
1634-04-4	Methyl Tertiary Butyl Ether		5	U
75-34-3	1,1-Dichloroethane		5	U
156-59-2	cis-1,2-Dichloroethene		5	U
78-93-3	2-Butanone		10	U
594-20-7	2,2-Dichloropropane		5	U
74-97-5	Bromochloromethane		5	U
67-66-3	Chloroform		5	U
71-55-6	1,1,1-Trichloroethane		5	U
563-58-6	1,1-Dichloropropene		5	U
56-23-5	Carbon Tetrachloride		5	U
71-43-2	Benzene		5	U
107-06-2	1,2-Dichloroethane		5	U
79-01-6	Trichloroethene		5	U
78-87-5	1,2-Dichloropropane		5	U
74-95-3	Dibromomethane		5	U
75-27-4	Bromodichloromethane		5	U
10061-01-5	cis-1,3-Dichloropropene		5	U
108-10-1	4-Methyl-2-Pentanone		10	U
108-88-3	Toluene		5	U
10061-02-6	trans-1,3-Dichloropropene		5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S2PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766765

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s44.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S2PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766765

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s44.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

S2PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6766765

Data file: /chem2/HP09355.i/12sep03b.b/ys03s44.d Injection date and time: **04-SEP-2012 08:07**
Data file Sample Info. Line: S2PAT;6766765;1;0;;PTL07;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:15 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
28) t-Butyl Alcohol-d10	2.036(0.012)	198	65	282617 (7)	250.00	
71) Fluorobenzene	4.141(0.012)	544	96	863599 (-4)	50.00	
106) Chlorobenzene-d5	7.328(0.006)	1068	117	635722 (-8)	50.00	
136) 1,4-Dichlorobenzene-d4	9.354(0.000)	1401	152	376119 (-15)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(1)	3.496(0.000)	113	217539	54.491	109%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	3.806(0.000)	102	54184	51.908	104%		77 - 113
93) Toluene-d8	(2)	5.765(0.000)	98	838355	48.440	97%		80 - 113
119) 4-Bromofluorobenzene	(2)	8.442(-0.001)	95	300216	46.477	93%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
5) Vinyl Chloride	(1)			Not Detected					1	5
7) Bromomethane	(1)			Not Detected					1	5
8) Chloroethane	(1)			Not Detected					1	5
10) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.8	5
17) Acetone	(1)			Not Detected					6	20
26) Methylene Chloride	(1)			Not Detected					2	5
31) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
32) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
34) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
41) 2-Butanone	(1)			Not Detected					3	10
42) 2,2-Dichloropropane	(1)			Not Detected					1	5
47) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)			Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
57) 1,1-Dichloropropene	(1)			Not Detected					1	5
58) Carbon Tetrachloride	(1)			Not Detected					1	5
63) Benzene	(1)			Not Detected					0.5	5
65) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
77) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
83) Bromodichloromethane	(1)			Not Detected					1	5
87) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
89) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
94) Toluene	(2)			Not Detected					0.7	5
95) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
97) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

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S2PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6766765

Data file: /chem2/HP09355.i/12sep03b.b/ys03s44.d Injection date and time: **04-SEP-2012 08:07**
Data file Sample Info. Line: S2PAT;6766765;1;0;;PTL07;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:15 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

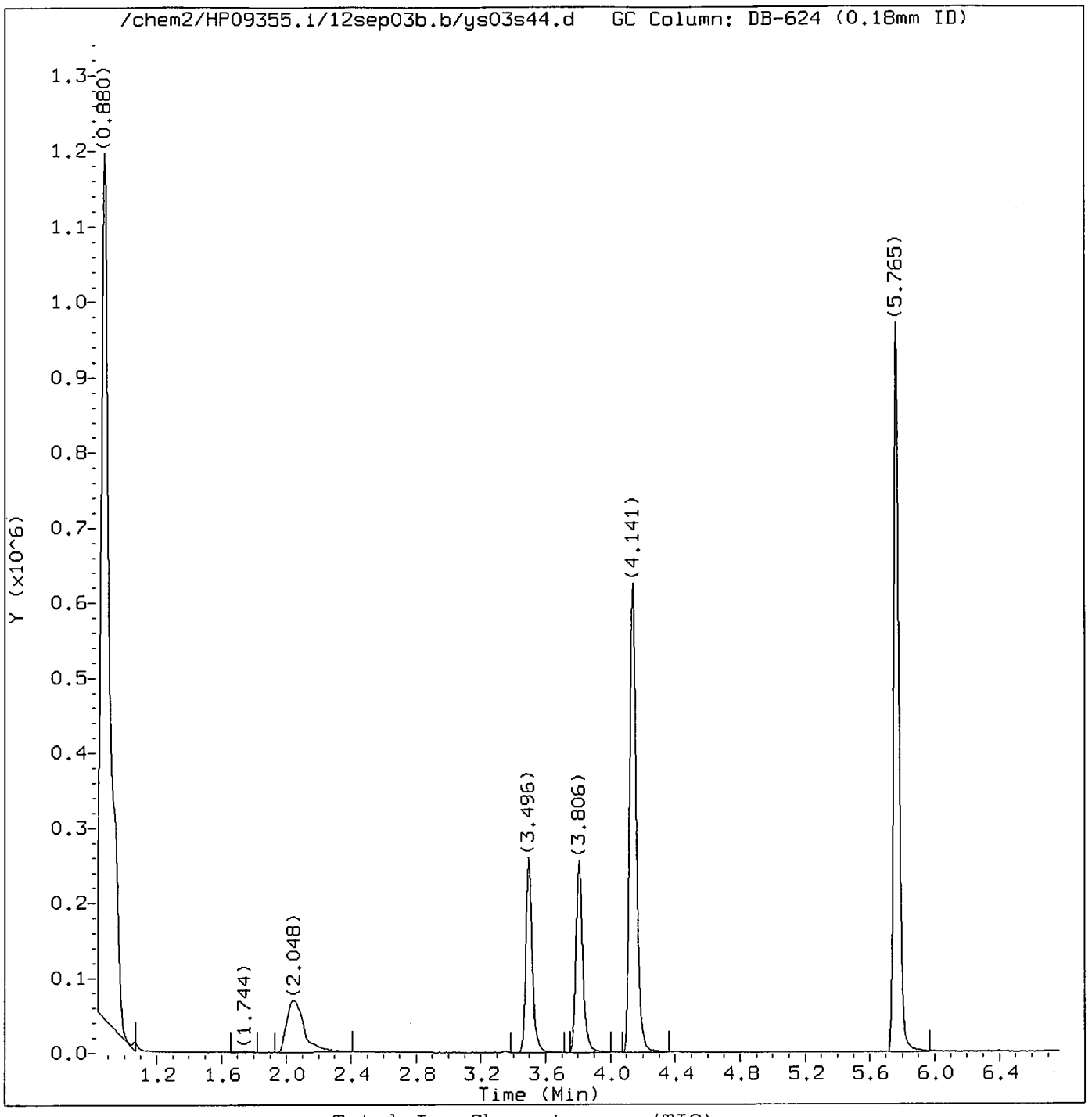
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
98) Tetrachloroethene	(2)				Not Detected					0.8	5
99) 1,3-Dichloropropane	(2)				Not Detected					1	5
102) Dibromochloromethane	(2)				Not Detected					1	5
104) 1,2-Dibromoethane	(2)				Not Detected					1	5
107) Chlorobenzene	(2)				Not Detected					0.8	5
108) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
109) Ethylbenzene	(2)				Not Detected					0.8	5
110) m+p-Xylene	(2)				Not Detected					0.8	5
112) Xylene (Total)	(2)				Not Detected					0.8	5
113) o-Xylene	(2)				Not Detected					0.8	5
114) Styrene	(2)				Not Detected					1	5
115) Bromoform	(2)				Not Detected					1	5
116) Isopropylbenzene	(2)				Not Detected					1	5
122) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
121) Bromobenzene	(3)				Not Detected					1	5
123) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
125) n-Propylbenzene	(3)				Not Detected					1	5
126) 2-Chlorotoluene	(3)				Not Detected					1	5
127) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
128) 4-Chlorotoluene	(3)				Not Detected					1	5
130) tert-Butylbenzene	(3)				Not Detected					1	5
132) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
133) sec-Butylbenzene	(3)				Not Detected					1	5
135) p-Isopropyltoluene	(3)				Not Detected					1	5
134) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
138) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
145) n-Butylbenzene	(3)				Not Detected					1	5
144) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
148) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
150) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
151) Hexachlorobutadiene	(3)				Not Detected					2	5
152) Naphthalene	(3)				Not Detected					1	5
153) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 64

Digitally signed by Angela D. Sneeringer on 09/04/2012 at 13:21. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

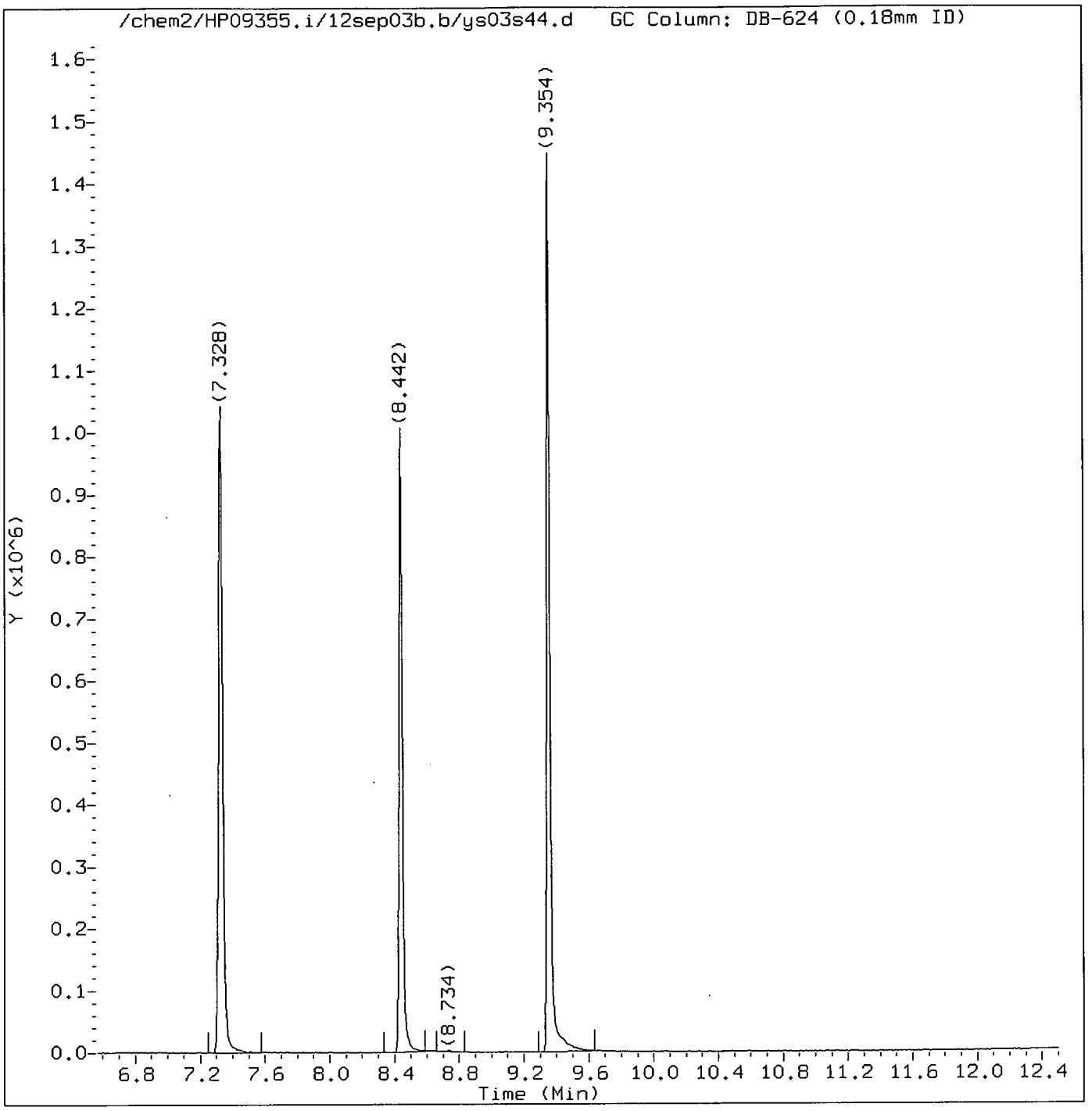
Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s44.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 08:07 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:15 ads01731

Sample Name: S2PAT Lab Sample ID: 6766765

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s44.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 08:07 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:15 ads01731

Sample Name: S2PAT Lab Sample ID: 6766765

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s44.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 08:07 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:15 ads01731

Sample Name: S2PAT Lab Sample ID: 6766765

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
28)*t-Butyl Alcohol-d10	(4)	2.036	65	282617	250.000
52)$Dibromofluoromethane	(1)	3.496	113	217539	54.491
62)$1,2-Dichloroethane-d4	(1)	3.806	102	54184	51.908
71)*Fluorobenzene	(1)	4.141	96	863599	50.000
93)$Toluene-d8	(2)	5.765	98	838355	48.440
106)*Chlorobenzene-d5	(2)	7.328	117	635722	50.000
119)$4-Bromofluorobenzene	(2)	8.442	95	300216	46.477
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	376119	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P2PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766766

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s45.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	20	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	10	U
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P2PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766766

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s45.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P2PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766766

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s45.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

P2PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6766766

Data file: /chem2/HP09355.i/12sep03b.b/ys03s45.d Injection date and time: **04-SEP-2012 08:28**
Data file Sample Info. Line: P2PAT;6766766;1;0;;PTL07;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:15 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
28) t-Butyl Alcohol-d10	2.048(0.000)	200	65	288197 (9)	250.00	
71) Fluorobenzene	4.141(0.012)	544	96	857004 (-5)	50.00	
106) Chlorobenzene-d5	7.329(0.006)	1068	117	630106 (-9)	50.00	
136) 1,4-Dichlorobenzene-d4	9.354(0.000)	1401	152	363068 (-17)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(1)	3.496(0.000)	113	217144	54.810	110%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	3.806(0.000)	102	53720	51.859	104%		77 - 113
93) Toluene-d8	(2)	5.765(0.000)	98	820380	47.824	96%		80 - 113
119) 4-Bromofluorobenzene	(2)	8.436(0.000)	95	297593	46.481	93%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
5) Vinyl Chloride	(1)			Not Detected					1	5
7) Bromomethane	(1)			Not Detected					1	5
8) Chloroethane	(1)			Not Detected					1	5
10) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.8	5
17) Acetone	(1)			Not Detected					6	20
26) Methylene Chloride	(1)			Not Detected					2	5
31) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
32) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
34) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
41) 2-Butanone	(1)			Not Detected					3	10
42) 2,2-Dichloropropane	(1)			Not Detected					1	5
47) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)			Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
57) 1,1-Dichloropropene	(1)			Not Detected					1	5
58) Carbon Tetrachloride	(1)			Not Detected					1	5
63) Benzene	(1)			Not Detected					0.5	5
65) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
77) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
83) Bromodichloromethane	(1)			Not Detected					1	5
87) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
89) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
94) Toluene	(2)			Not Detected					0.7	5
95) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
97) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

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P2PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6766766

Data file: /chem2/HP09355.i/12sep03b.b/ys03s45.d Injection date and time: **04-SEP-2012 08:28**
Data file Sample Info. Line: P2PAT;6766766;1;0;;PTL07;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:15 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
98) Tetrachloroethene	(2)				Not Detected					0.8	5
99) 1,3-Dichloropropane	(2)				Not Detected					1	5
102) Dibromochloromethane	(2)				Not Detected					1	5
104) 1,2-Dibromoethane	(2)				Not Detected					1	5
107) Chlorobenzene	(2)				Not Detected					0.8	5
108) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
109) Ethylbenzene	(2)				Not Detected					0.8	5
110) m+p-Xylene	(2)				Not Detected					0.8	5
112) Xylene (Total)	(2)				Not Detected					0.8	5
113) o-Xylene	(2)				Not Detected					0.8	5
114) Styrene	(2)				Not Detected					1	5
115) Bromoform	(2)				Not Detected					1	5
116) Isopropylbenzene	(2)				Not Detected					1	5
122) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
121) Bromobenzene	(3)				Not Detected					1	5
123) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
125) n-Propylbenzene	(3)				Not Detected					1	5
126) 2-Chlorotoluene	(3)				Not Detected					1	5
127) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
128) 4-Chlorotoluene	(3)				Not Detected					1	5
130) tert-Butylbenzene	(3)				Not Detected					1	5
132) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
133) sec-Butylbenzene	(3)				Not Detected					1	5
135) p-Isopropyltoluene	(3)				Not Detected					1	5
134) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
138) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
145) n-Butylbenzene	(3)				Not Detected					1	5
144) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
148) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
150) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
151) Hexachlorobutadiene	(3)				Not Detected					2	5
152) Naphthalene	(3)				Not Detected					1	5
153) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 64

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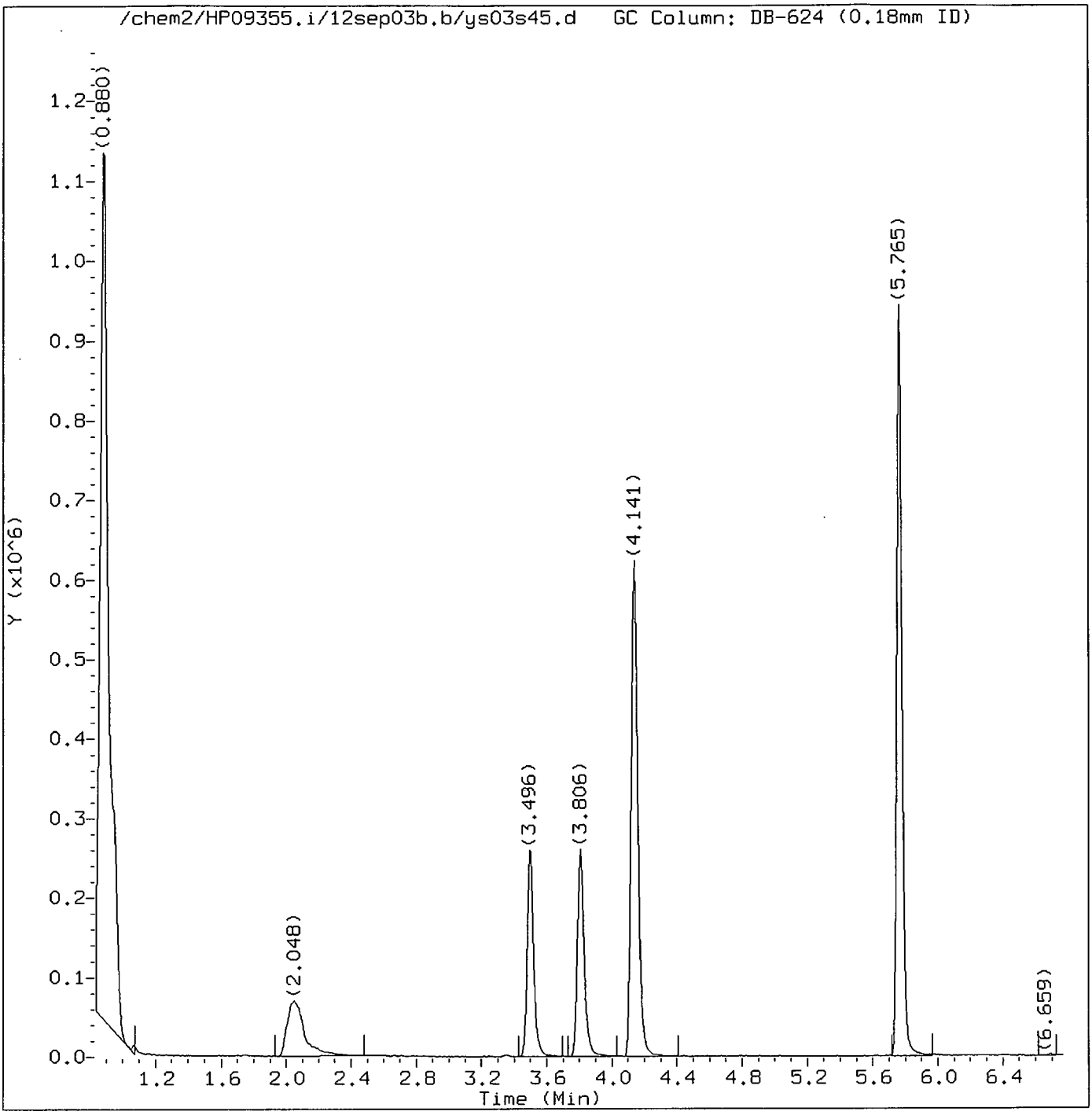
Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

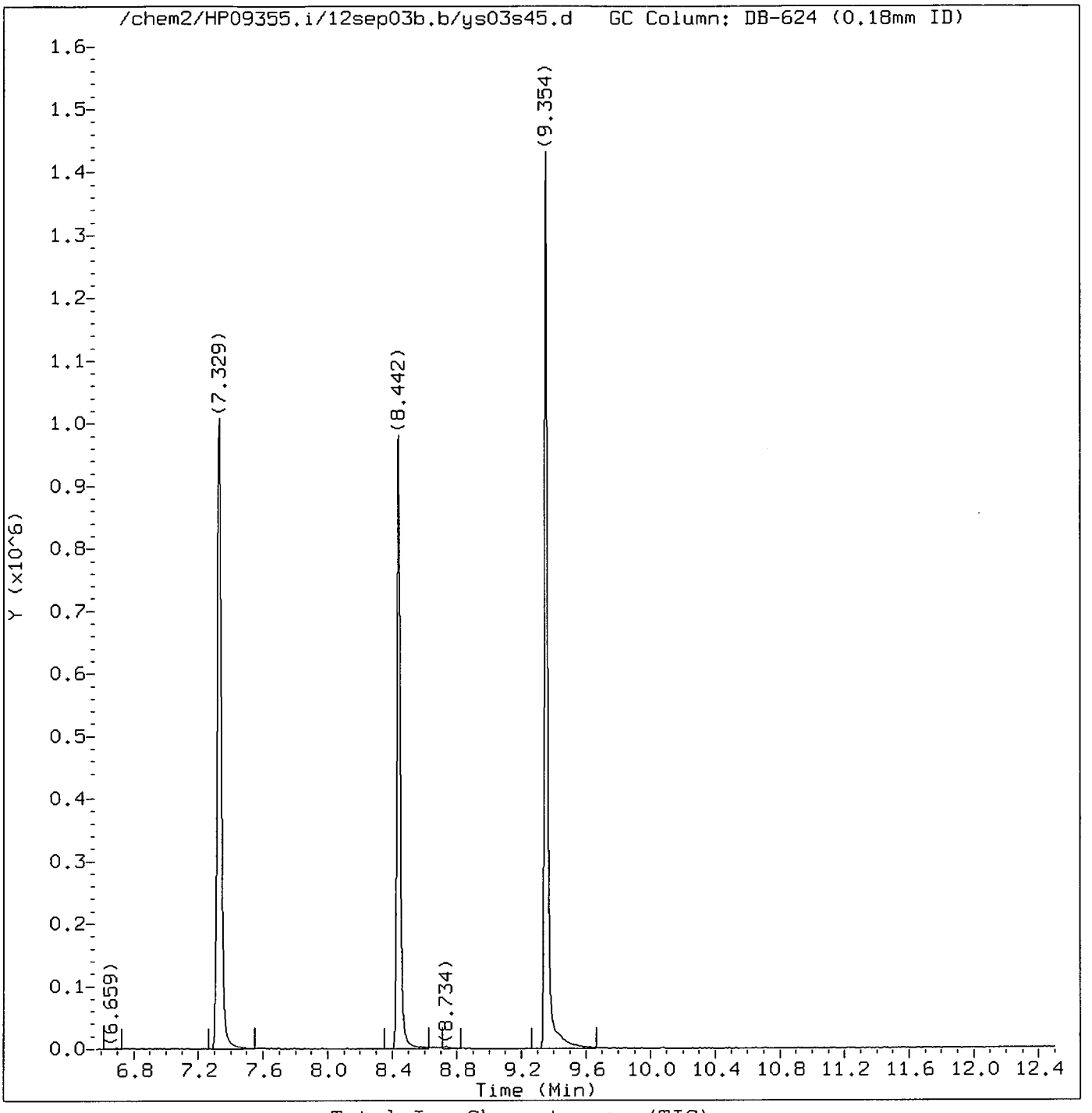
Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s45.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 08:28 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:15 ads01731

Sample Name: P2PAT Lab Sample ID: 6766766

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s45.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 08:28 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:15 ads01731

Sample Name: P2PAT Lab Sample ID: 6766766

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s45.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 08:28 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:15 ads01731

Sample Name: P2PAT Lab Sample ID: 6766766

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
28)*t-Butyl Alcohol-d10	(4)	2.048	65	288197	250.000
52)$Dibromofluoromethane	(1)	3.496	113	217144	54.810
62)$1,2-Dichloroethane-d4	(1)	3.806	102	53720	51.859
71)*Fluorobenzene	(1)	4.141	96	857004	50.000
93)$Toluene-d8	(2)	5.765	98	820380	47.824
106)*Chlorobenzene-d5	(2)	7.329	117	630106	50.000
119)$4-Bromofluorobenzene	(2)	8.436	95	297593	46.481
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	363068	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S3PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766767

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s46.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	20	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	10	U
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S3PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766767

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s46.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
108 86-1	Bromobenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S3PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766767

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s46.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

S3PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6766767

Data file: /chem2/HP09355.i/12sep03b.b/ys03s46.d Injection date and time: **04-SEP-2012 08:49**
Data file Sample Info. Line: S3PAT;6766767;1;0;;PTL07;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:16 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
28) t-Butyl Alcohol-d10	2.054(-0.006)	201	65	280287 (6)	250.00	
71) Fluorobenzene	4.141(0.012)	544	96	843169 (-6)	50.00	
106) Chlorobenzene-d5	7.329(0.006)	1068	117	618224 (-10)	50.00	
136) 1,4-Dichlorobenzene-d4	9.354(0.000)	1401	152	366144 (-17)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(1)	3.502(-0.001)	113	212664	54.560	109%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	3.812(-0.001)	102	52998	52.002	104%		77 - 113
93) Toluene-d8	(2)	5.765(0.000)	98	810236	48.140	96%		80 - 113
119) 4-Bromofluorobenzene	(2)	8.442(-0.001)	95	288241	45.886	92%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
5) Vinyl Chloride	(1)			Not Detected					1	5
7) Bromomethane	(1)			Not Detected					1	5
8) Chloroethane	(1)			Not Detected					1	5
10) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.8	5
17) Acetone	(1)			Not Detected					6	20
26) Methylene Chloride	(1)			Not Detected					2	5
31) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
32) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
34) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
41) 2-Butanone	(1)			Not Detected					3	10
42) 2,2-Dichloropropane	(1)			Not Detected					1	5
47) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)			Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
57) 1,1-Dichloropropene	(1)			Not Detected					1	5
58) Carbon Tetrachloride	(1)			Not Detected					1	5
63) Benzene	(1)			Not Detected					0.5	5
65) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
77) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
83) Bromodichloromethane	(1)			Not Detected					1	5
87) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
89) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
94) Toluene	(2)			Not Detected					0.7	5
95) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
97) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

Digitally signed by Angela D. Sneeringer on 09/04/2012 at 13:21. Target 3.5 esignature user ID: ads01731

S3PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6766767

Data file: /chem2/HP09355.i/12sep03b.b/ys03s46.d Injection date and time: **04-SEP-2012 08:49**
Data file Sample Info. Line: S3PAT;6766767;1;0;;PTL07;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:16 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
98) Tetrachloroethene	(2)			Not Detected					0.8	5
99) 1,3-Dichloropropane	(2)			Not Detected					1	5
102) Dibromochloromethane	(2)			Not Detected					1	5
104) 1,2-Dibromoethane	(2)			Not Detected					1	5
107) Chlorobenzene	(2)			Not Detected					0.8	5
108) 1,1,1,2-Tetrachloroethane	(2)			Not Detected					1	5
109) Ethylbenzene	(2)			Not Detected					0.8	5
110) m+p-Xylene	(2)			Not Detected					0.8	5
112) Xylene (Total)	(2)			Not Detected					0.8	5
113) o-Xylene	(2)			Not Detected					0.8	5
114) Styrene	(2)			Not Detected					1	5
115) Bromoform	(2)			Not Detected					1	5
116) Isopropylbenzene	(2)			Not Detected					1	5
122) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					1	5
121) Bromobenzene	(3)			Not Detected					1	5
123) 1,2,3-Trichloropropane	(3)			Not Detected					1	5
125) n-Propylbenzene	(3)			Not Detected					1	5
126) 2-Chlorotoluene	(3)			Not Detected					1	5
127) 1,3,5-Trimethylbenzene	(3)			Not Detected					1	5
128) 4-Chlorotoluene	(3)			Not Detected					1	5
130) tert-Butylbenzene	(3)			Not Detected					1	5
132) 1,2,4-Trimethylbenzene	(3)			Not Detected					1	5
133) sec-Butylbenzene	(3)			Not Detected					1	5
135) p-Isopropyltoluene	(3)			Not Detected					1	5
134) 1,3-Dichlorobenzene	(3)			Not Detected					1	5
138) 1,4-Dichlorobenzene	(3)			Not Detected					1	5
145) n-Butylbenzene	(3)			Not Detected					1	5
144) 1,2-Dichlorobenzene	(3)			Not Detected					1	5
148) 1,2-Dibromo-3-Chloropropane	(3)			Not Detected					2	5
150) 1,2,4-Trichlorobenzene	(3)			Not Detected					1	5
151) Hexachlorobutadiene	(3)			Not Detected					2	5
152) Naphthalene	(3)			Not Detected					1	5
153) 1,2,3-Trichlorobenzene	(3)			Not Detected					1	5

Total number of targets = 64

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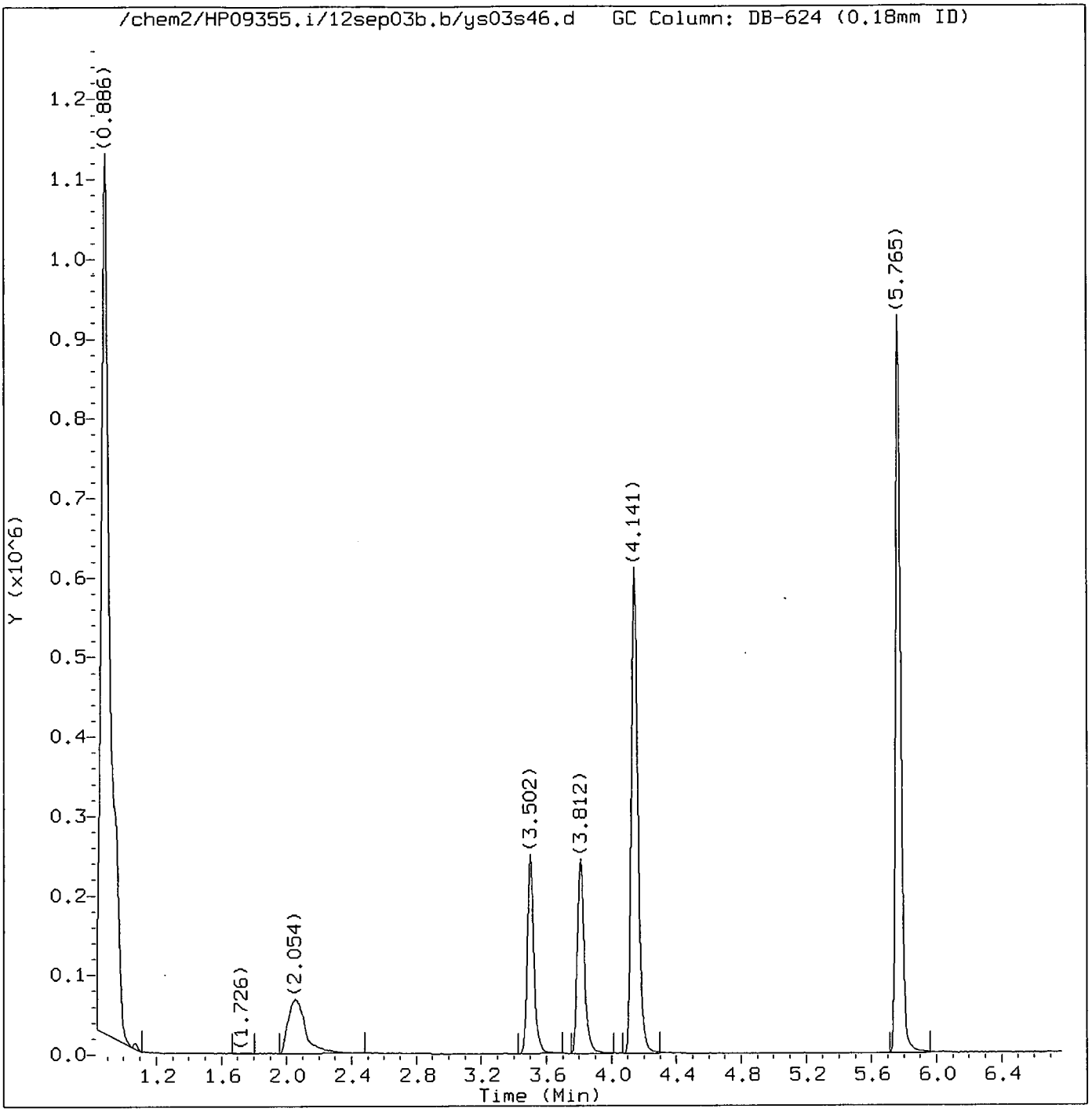
Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

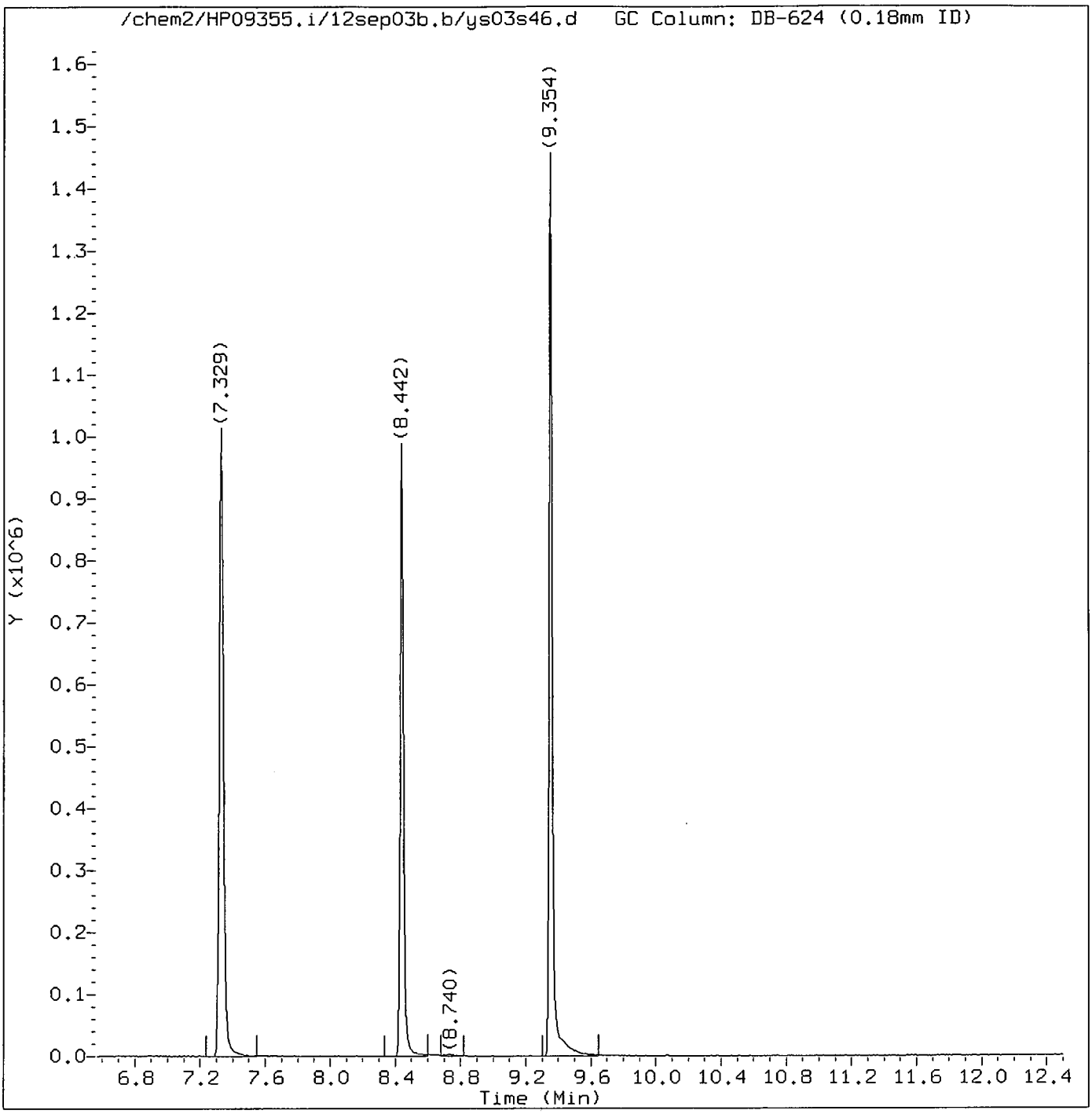
Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s46.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 08:49 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:16 ads01731

Sample Name: S3PAT Lab Sample ID: 6766767

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s46.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 08:49 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:16 ads01731

Sample Name: S3PAT Lab Sample ID: 6766767

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s46.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 08:49 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:16 ads01731

Sample Name: S3PAT Lab Sample ID: 6766767

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
28)*t-Butyl Alcohol-d10	(4)	2.054	65	280287	250.000
52)$Dibromofluoromethane	(1)	3.502	113	212664	54.560
62)$1,2-Dichloroethane-d4	(1)	3.812	102	52998	52.002
71)*Fluorobenzene	(1)	4.141	96	843169	50.000
93)$Toluene-d8	(2)	5.765	98	810236	48.140
106)*Chlorobenzene-d5	(2)	7.329	117	618224	50.000
119)$4-Bromofluorobenzene	(2)	8.442	95	288241	45.886
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	366144	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P3PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766768

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s47.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	20	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	10	U
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P3PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766768

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s47.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P3PAT

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6766768

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03s47.d

Level: (low/med) LOW Date Received: 08/23/12

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

P3PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6766768

Data file: /chem2/HP09355.i/12sep03b.b/ys03s47.d
Injection date and time: **04-SEP-2012 09:09**
Data file Sample Info. Line: P3PAT;6766768;1;0;;PTL07;PLM;;ys03b05;
Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:16 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
28) t-Butyl Alcohol-d10	2.042	(0.006)	199	65	288897	(9)	250.00	
71) Fluorobenzene	4.135	(0.018)	543	96	836349	(-7)	50.00	
106) Chlorobenzene-d5	7.329	(0.006)	1068	117	621031	(-10)	50.00	
136) 1,4-Dichlorobenzene-d4	9.354	(0.000)	1401	152	366927	(-17)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(1)	3.496	(-0.001)	113	211561	54.720	109%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	3.806	(-0.001)	102	52352	51.787	104%		77 - 113
93) Toluene-d8	(2)	5.765	(0.000)	98	816235	48.277	97%		80 - 113
119) 4-Bromofluorobenzene	(2)	8.442	(-0.001)	95	291237	46.153	92%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
5) Vinyl Chloride	(1)				Not Detected					1	5
7) Bromomethane	(1)				Not Detected					1	5
8) Chloroethane	(1)				Not Detected					1	5
10) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)				Not Detected					0.8	5
17) Acetone	(1)				Not Detected					6	20
26) Methylene Chloride	(1)				Not Detected					2	5
31) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
32) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
34) 1,1-Dichloroethane	(1)				Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
41) 2-Butanone	(1)				Not Detected					3	10
42) 2,2-Dichloropropane	(1)				Not Detected					1	5
47) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
57) 1,1-Dichloropropene	(1)				Not Detected					1	5
58) Carbon Tetrachloride	(1)				Not Detected					1	5
63) Benzene	(1)				Not Detected					0.5	5
65) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
77) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
83) Bromodichloromethane	(1)				Not Detected					1	5
87) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
89) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
94) Toluene	(2)				Not Detected					0.7	5
95) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
97) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

Digitally signed by Angela D. Sneeringer on 09/04/2012 at 13:21. Target 3.5 esignature user ID: ads01731

P3PAT

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6766768

Data file: /chem2/HP09355.i/12sep03b.b/ys03s47.d Injection date and time: **04-SEP-2012 09:09**
Data file Sample Info. Line: P3PAT;6766768;1;0;;PTL07;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 13:16 ads01731

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 04-SEP-2012 09:33
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

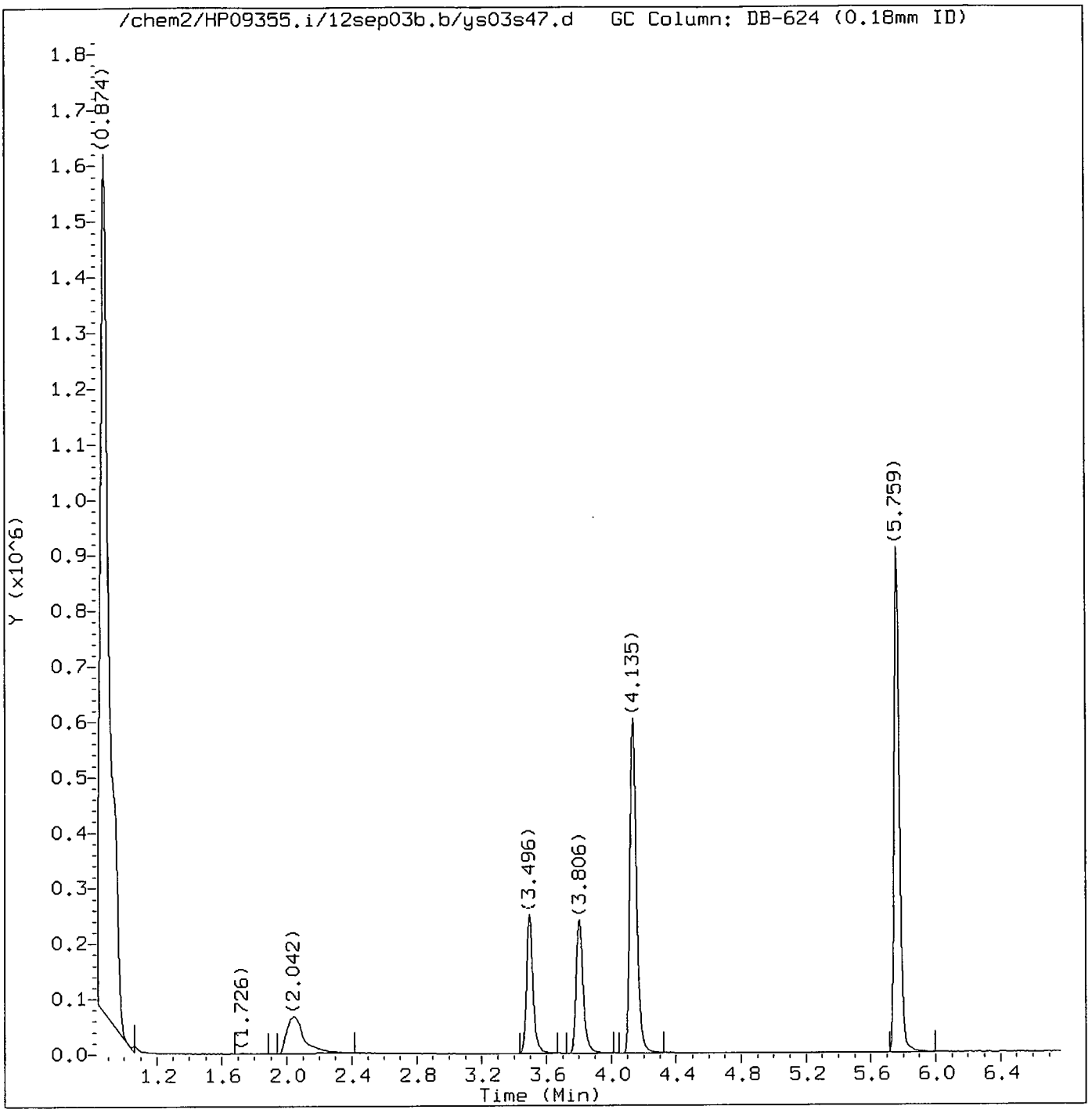
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
98) Tetrachloroethene	(2)				Not Detected					0.8	5
99) 1,3-Dichloropropane	(2)				Not Detected					1	5
102) Dibromochloromethane	(2)				Not Detected					1	5
104) 1,2-Dibromoethane	(2)				Not Detected					1	5
107) Chlorobenzene	(2)				Not Detected					0.8	5
108) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
109) Ethylbenzene	(2)				Not Detected					0.8	5
110) m+p-Xylene	(2)				Not Detected					0.8	5
112) Xylene (Total)	(2)				Not Detected					0.8	5
113) o-Xylene	(2)				Not Detected					0.8	5
114) Styrene	(2)				Not Detected					1	5
115) Bromoform	(2)				Not Detected					1	5
116) Isopropylbenzene	(2)				Not Detected					1	5
122) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
121) Bromobenzene	(3)				Not Detected					1	5
123) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
125) n-Propylbenzene	(3)				Not Detected					1	5
126) 2-Chlorotoluene	(3)				Not Detected					1	5
127) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
128) 4-Chlorotoluene	(3)				Not Detected					1	5
130) tert-Butylbenzene	(3)				Not Detected					1	5
132) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
133) sec-Butylbenzene	(3)				Not Detected					1	5
135) p-Isopropyltoluene	(3)				Not Detected					1	5
134) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
138) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
145) n-Butylbenzene	(3)				Not Detected					1	5
144) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
148) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
150) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
151) Hexachlorobutadiene	(3)				Not Detected					2	5
152) Naphthalene	(3)				Not Detected					1	5
153) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 64

Digitally signed by Angela D. Sneeringer on 09/04/2012 at 13:21. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

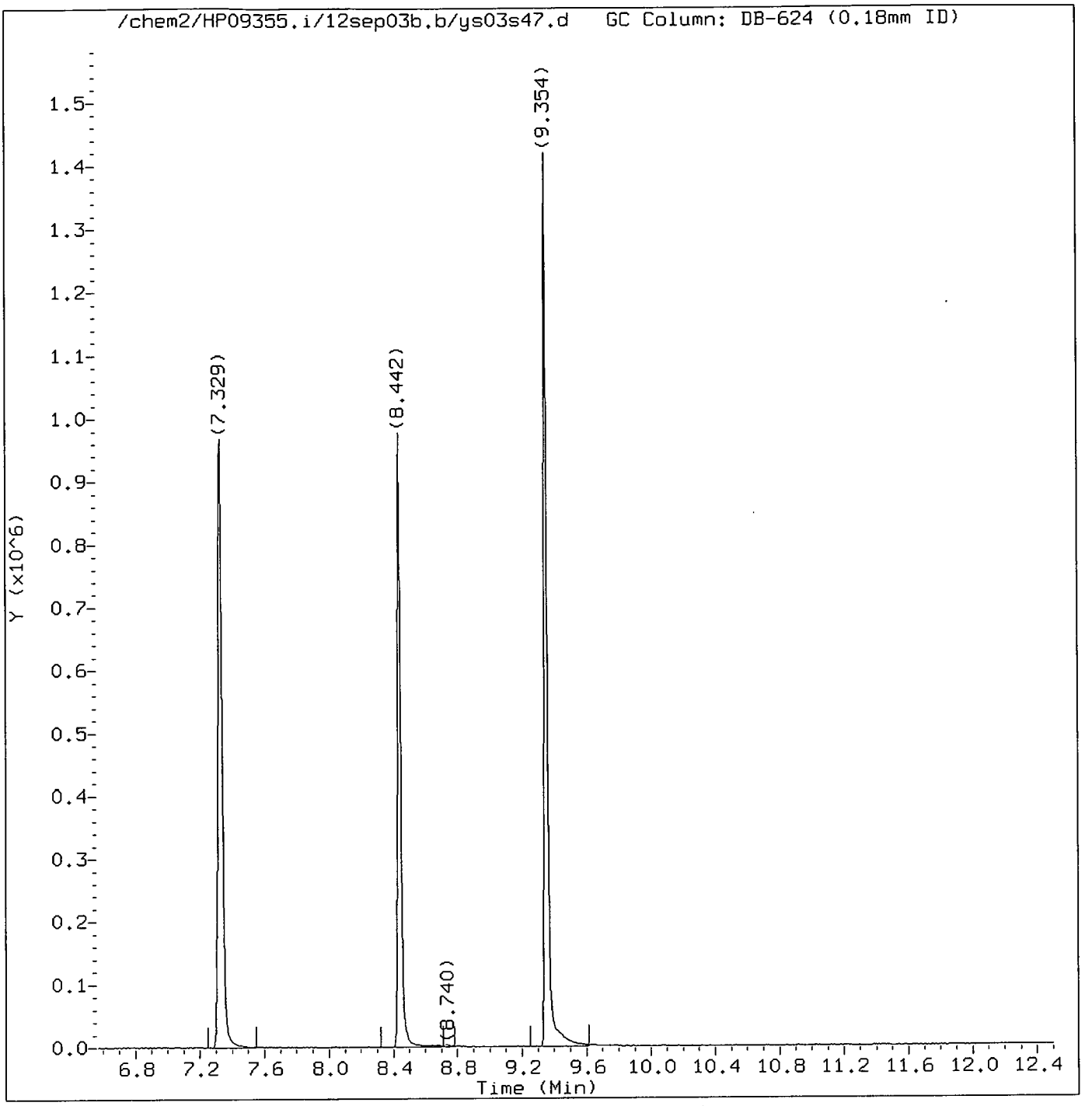
Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s47.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 09:09 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:16 ads01731

Sample Name: P3PAT Lab Sample ID: 6766768

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s47.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 09:09 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:16 ads01731

Sample Name: P3PAT Lab Sample ID: 6766768

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03s47.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 09:09 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8732
Calibration date and time: 04-SEP-2012 09:33
Date, time and analyst ID of latest file update: 04-Sep-2012 13:16 ads01731

Sample Name: P3PAT Lab Sample ID: 6766768

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
28)*t-Butyl Alcohol-d10	(4)	2.042	65	288897	250.000
52)$Dibromofluoromethane	(1)	3.496	113	211561	54.720
62)$1,2-Dichloroethane-d4	(1)	3.806	102	52352	51.787
71)*Fluorobenzene	(1)	4.135	96	836349	50.000
93)$Toluene-d8	(2)	5.765	98	816235	48.277
106)*Chlorobenzene-d5	(2)	7.329	117	621031	50.000
119)$4-Bromofluorobenzene	(2)	8.442	95	291237	46.153
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	366927	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Angela D. Sneeringer
on 09/04/2012 at 13:21.
Target 3.5 esignature user ID: ads01731

Standards Data

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP09355 **HP #20**

** Shift #1 Analyst: ADS ** Shift #2 Analyst: _____ ** Shift #3 Analyst: _____ *

Comment Code:

R =	Reinjection necessary	X =	Sample sent to be reextracted
S =	Surrogate problem	I =	Internal Standard problem
NU =	Not used	F =	Further dilution required
MR =	Meets requirements	IUO =	Internal use only
Cz =	Confirms z, (z = S, I or X)	T =	Injected outside valid tune period

Other problems or comments are as follows:

_____

_____

_____

_____

Data Directory Path is - C:\msdchem\1\12JUL10A\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
YL10T01.D	50NG BFB MAR28-12		10 Jul 2012	08:43			MR
YL10I01.D	VSTD300	VSTD300	10 Jul 2012	09:00			MR
YL10I02.D	VSTD100	VSTD100	10 Jul 2012	09:21			MR
YL10I03.D	VSTD050	VSTD050	10 Jul 2012	09:42			MR
YL10I04.D	VSTD020	VSTD020	10 Jul 2012	10:02			MR
YL10I05.D	VSTD010	VSTD010	10 Jul 2012	10:23			MR
YL10I06.D	VSTD004	VSTD004	10 Jul 2012	10:44			MR
YL10M01.D	MDL001	MDL001	10 Jul 2012	11:06			MR
YL10V01.D	YSMICV	YSMICV	10 Jul 2012	11:27			MR
YL10I11.D	VSTD300	VSTD300	10 Jul 2012	11:58			MR
YL10I12.D	VSTD100	VSTD100	10 Jul 2012	12:19			MR
YL10I13.D	VSTD050	VSTD050	10 Jul 2012	12:41			MR
YL10I14.D	VSTD020	VSTD020	10 Jul 2012	13:07			MR
YL10I15.D	VSTD010	VSTD010	10 Jul 2012	13:28			MR
YL10I16.D	VSTD004	VSTD004	10 Jul 2012	13:50			MR
YL10I17.D	VSTD001	VSTD001	10 Jul 2012	14:10			MR
YL10M02.D	MDL0.5	MDL0.5	10 Jul 2012	14:34			MR
YL10V02.D	YLGICV	YLGICV	10 Jul 2012	14:55			MR

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP09355 **HP #20**

** Shift #1 Analyst: ADS ** Shift #2 Analyst: _____ ** Shift #3 Analyst: SAS *

Comment Code: R = Reinjection necessary X = Sample sent to be reextracted
S = Surrogate problem I = Internal Standard problem
NU = Not used F = Further dilution required
MR = Meets requirements IUO = Internal use only
Cz = Confirms z, (z = S, I or X) T = Injected outside valid tune period

Other problems or comments are as follows:

*
*
*
* **LINE MANUALLY EDITED *

Data Directory Path is - C:\msdchem\1\12SEP03B\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
YS03T05.D	50NG BFB MAR28-12		03 Sep 2012	23:39			MR
YS03X05.D	VBLKY65	VBLKY65	03 Sep 2012	23:58	Y122472AA		NU
YS03C01.D	VSTD050	VSTD050	04 Sep 2012	00:19	Y122472AA		MR
YS03B05.D	VBLKY65	VBLKY65	04 Sep 2012	00:39	Y122472AA		MR
YS03L31.D	LCSY65	LCSY65	04 Sep 2012	01:00	Y122472AA		NU
YS03L32.D	LCDY65	LCDY65	04 Sep 2012	01:20	Y122472AA		NU
YS03L31A.D	LCSY65	LCSY65	04 Sep 2012	01:58	Y122472AA		MR
YS03L32A.D	LCDY65	LCDY65	04 Sep 2012	02:19	Y122472AA		MR
YS03S31.D	GSIT1	6769939	04 Sep 2012	03:20	Y122472AA		MR
YS03S32.D	GW-15	6769616	04 Sep 2012	03:40	Y122472AA		MR
YS03S33.D	GW-11	6769617	04 Sep 2012	04:01	Y122472AA		F
YS03S34.D	GW-3-	6769618	04 Sep 2012	04:21	Y122472AA		MR
YS03S35.D	GW-16	6769619	04 Sep 2012	04:42	Y122472AA		MR
YS03S36.D	FB828	6769620	04 Sep 2012	05:02	Y122472AA		MR
YS03S37.D	FD828	6769621	04 Sep 2012	05:43	Y122472AA		MR
YS03S38.D	MW38CDL	6769936DL **	04 Sep 2012	06:03	Y122472AA	500	MR
YS03S39.D	GS38BDL2	6771415DL2	04 Sep 2012	06:24	Y122472AA	1000	MR
YS03S40.D	ACU3B	6773615	04 Sep 2012	06:45	Y122472AA	10	F
YS03S41.D	ACU3BDL	6773615DL	04 Sep 2012	07:05	Y122472AA	100	F
YS03S42.D	S1PAT	6766763	04 Sep 2012	07:26	Y122472AA		MR
YS03S43.D	P1PAT	6766764	04 Sep 2012	07:47	Y122472AA		MR
YS03S44.D	S2PAT	6766765	04 Sep 2012	08:07	Y122472AA		MR
YS03S45.D	P2PAT	6766766	04 Sep 2012	08:28	Y122472AA		MR
YS03S46.D	S3PAT	6766767	04 Sep 2012	08:49	Y122472AA		MR
YS03S47.D	P3PAT	6766768	04 Sep 2012	09:09	Y122472AA		MR
YS03S48.D	TBPAT	6766769	04 Sep 2012	09:30	Y122472AA		MR

Data File: /chem2/HP09355.i/12jul10a.b/yl10t01.d

Date : 10-JUL-2012 08:43

Client ID: 50NG BFB MAR28-12

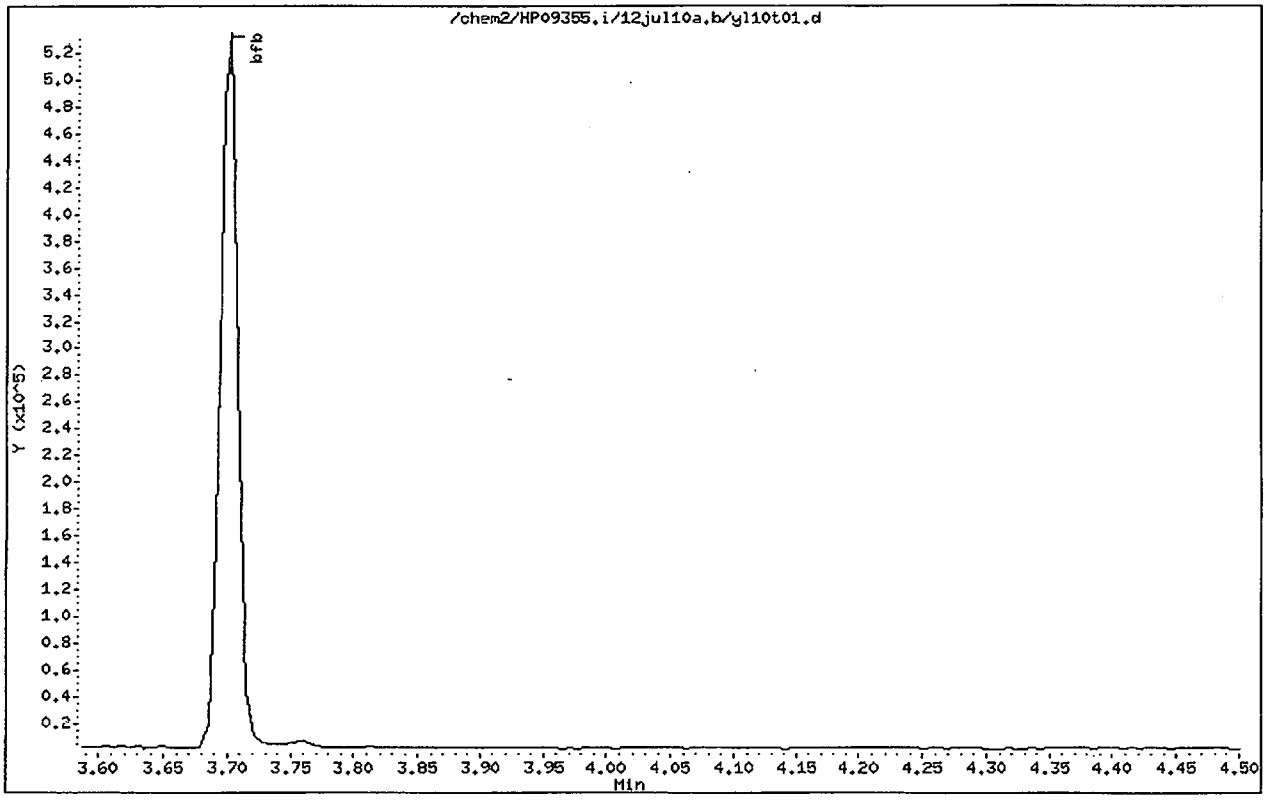
Instrument: HP09355.i

Sample Info: 50NG BFB MAR28-12

Operator: ADS01731

Column phase: DB-624

Column diameter: 0.18



Digitally signed by Angela D. Sneeringer on 07/10/2012 at 12:04.
Target 3.5 esignature user ID: ads01731

Data File: /chem2/HP09355.i/12jul10a.b/yl10t01.d

Date : 10-JUL-2012 08:43

Client ID: 50NG BFB MAR28-12

Instrument: HP09355.i

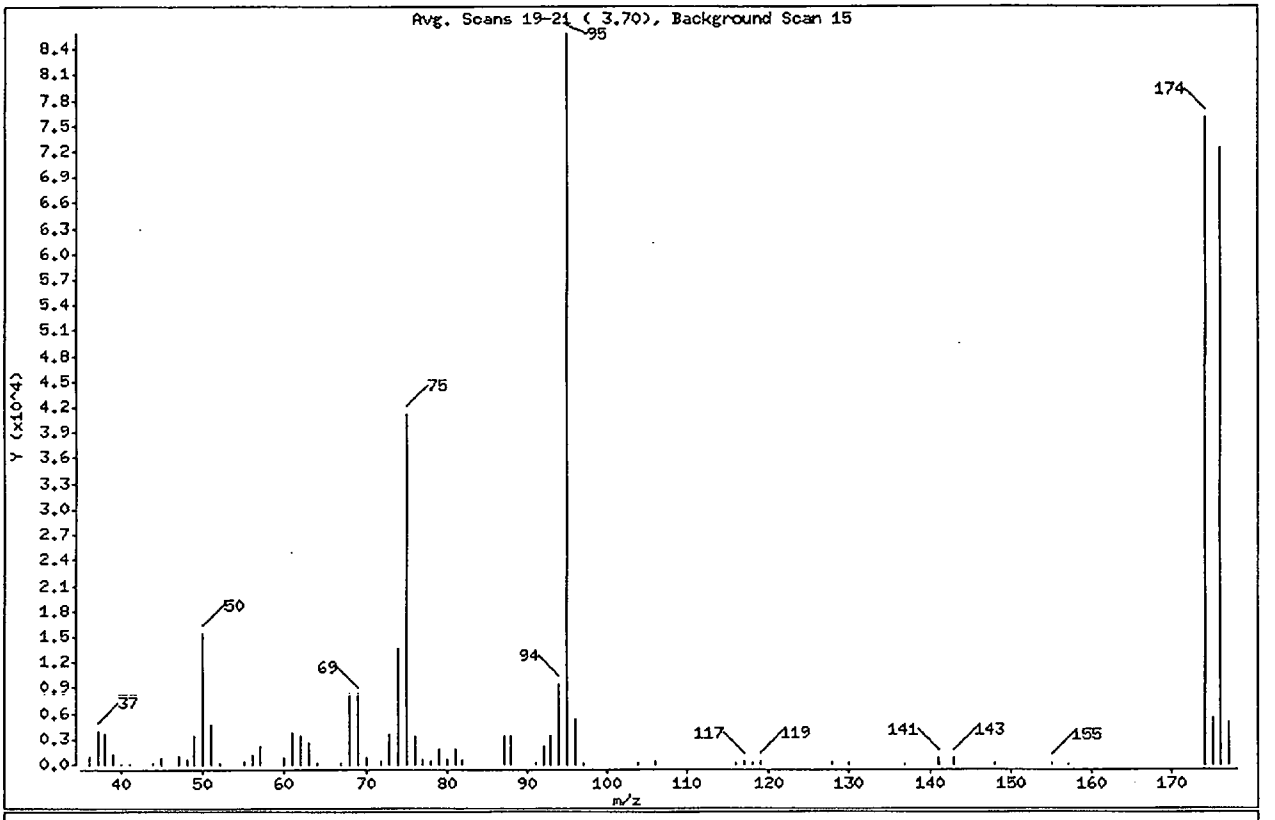
Sample Info: 50NG BFB MAR28-12

Operator: ADS01731

Column phase: DB-624

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.02
75	30.00 - 60.00% of mass 95	48.08
96	5.00 - 9.00% of mass 95	6.22
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	88.48
175	5.00 - 9.00% of mass 174	6.36 (7.19)
176	95.00 - 101.00% of mass 174	84.46 (95.46)
177	5.00 - 9.00% of mass 176	5.70 (6.76)

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 12:04.
Target 3.5 esignature user ID: ads01731

Data File: /chem2/HP09355.i/12jul10a.b/yl10t01.d

Date : 10-JUL-2012 08:43

Client ID: 50NG BFB MAR28-12

Instrument: HP09355.i

Sample Info: 50NG BFB MAR28-12

Operator: ADS01731

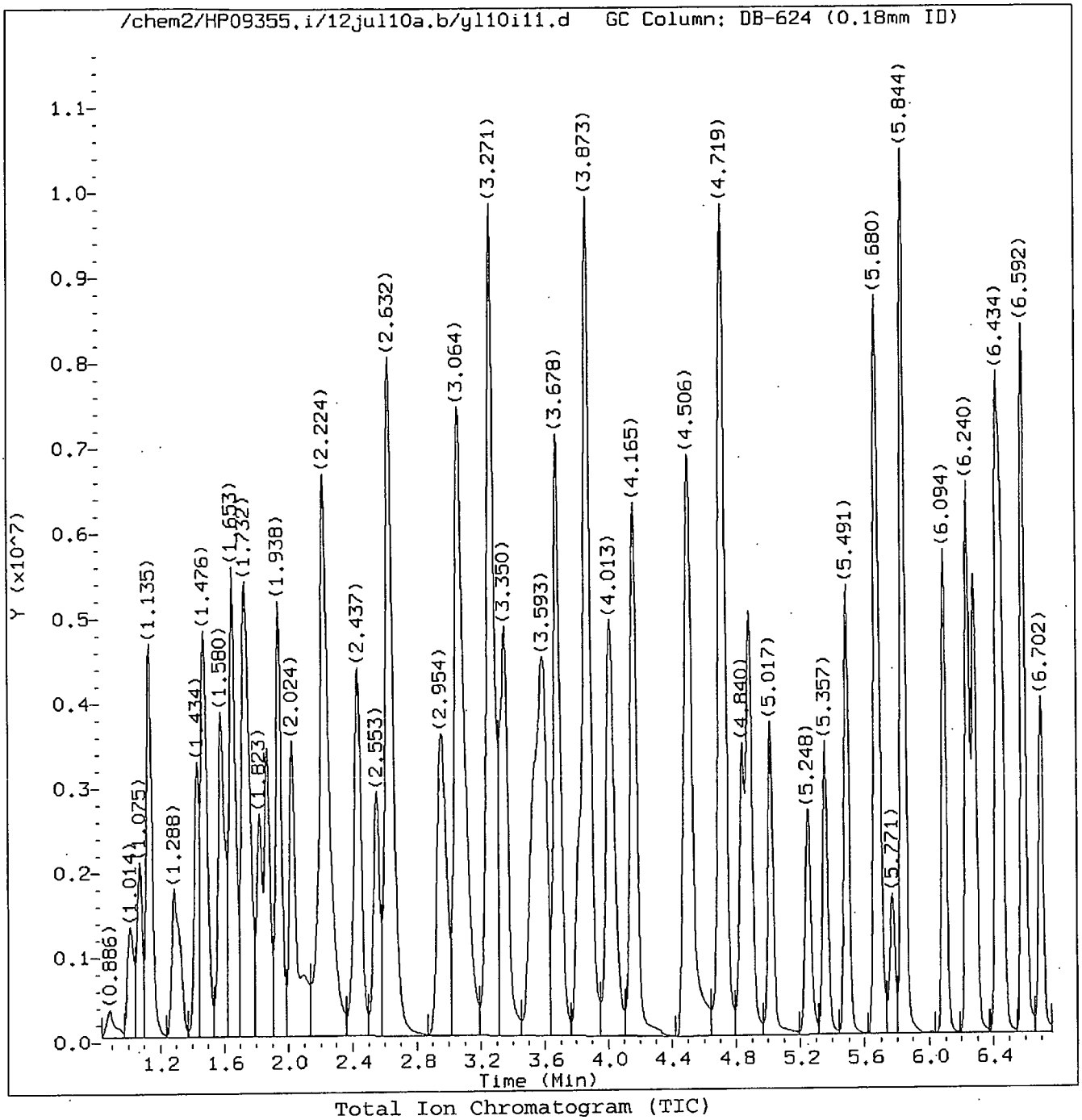
Column phase: DB-624

Column diameter: 0.18

Data File: yl10t01.d
Spectrum: Avg. Scans 19-21 (3.70), Background Scan 15
Location of Maximum: 95.00
Number of points: 64

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	890	60.00	785	80.00	558	119.00	402
37.00	3936	61.00	3702	81.00	1691	128.00	264
38.00	3576	62.00	3381	82.00	495	130.00	230
39.00	1240	63.00	2512	87.00	3256	137.00	87
40.00	75	64.00	234	88.00	3255	141.00	801
41.00	2	67.00	274	91.00	286	143.00	788
44.00	270	68.00	8058	92.00	2144	148.00	185
45.00	813	69.00	8147	93.00	3300	155.00	189
47.00	1014	70.00	726	94.00	9436	157.00	86
48.00	494	72.00	396	95.00	85792	174.00	75904
49.00	3297	73.00	3474	96.00	5339	175.00	5454
50.00	15461	74.00	13580	97.00	193	176.00	72456
51.00	4821	75.00	41240	104.00	265	177.00	4889
52.00	195	76.00	3299	106.00	319		
55.00	321	77.00	577	116.00	205		
56.00	1282	78.00	383	117.00	328		
57.00	2083	79.00	1723	118.00	265		

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 12:04.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

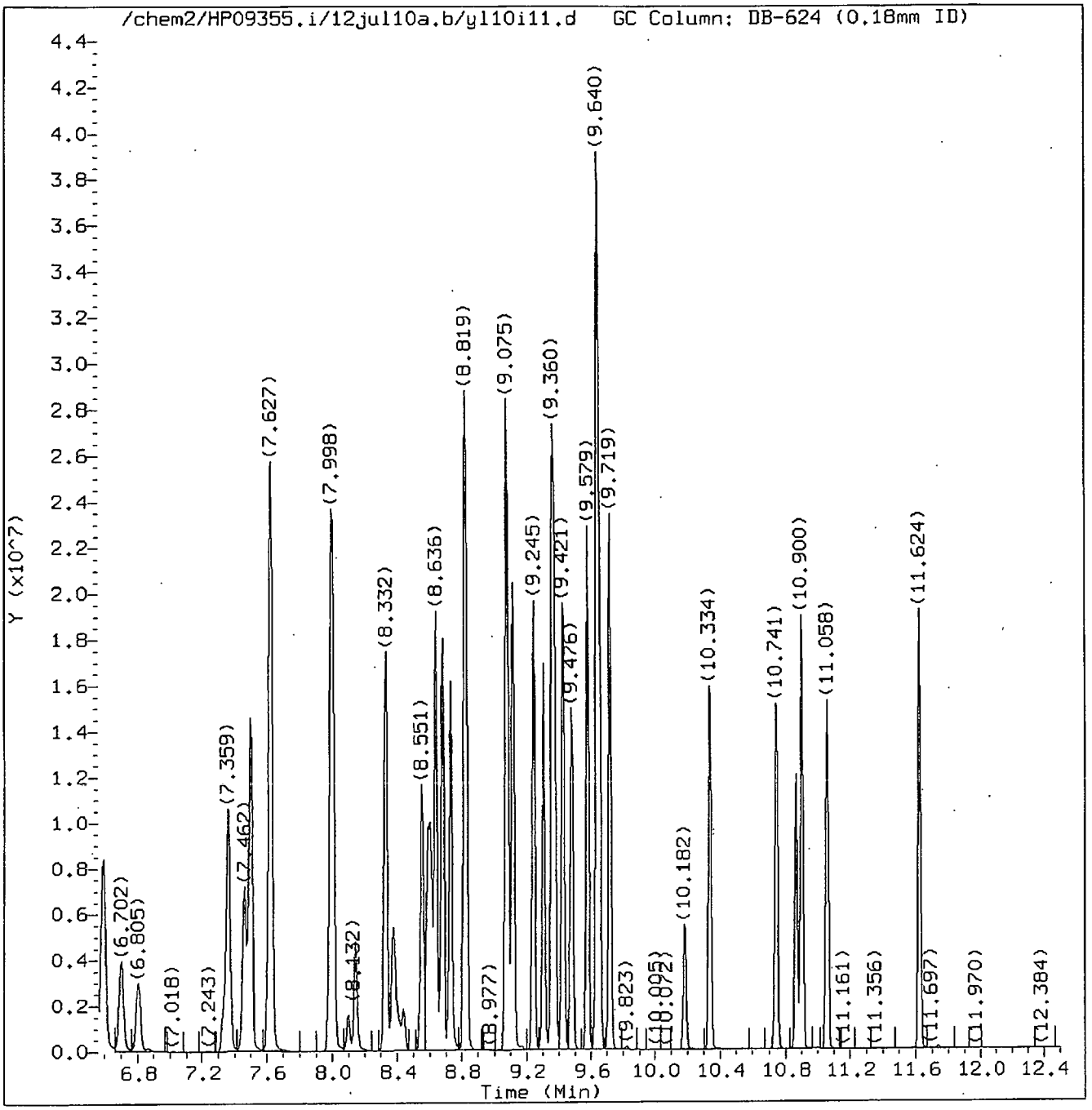
Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:39.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:39
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 11-JUL-2012 18:07
Date, time and analyst ID of latest file update: 11-Jul-2012 18:07 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.014	85	2823627	283.846
3) Chloromethane	(1)	1.075	50	2730610M	261.566
4) 1,3-Butadiene	(1)	1.129	39	1876039	262.236
5) Vinyl Chloride	(1)	1.142	62	2560637	260.640
7) Bromomethane	(1)	1.288	94	1479029	245.715
8) Chloroethane	(1)	1.318	64	1232802	241.245
9) Dichlorofluoromethane	(1)	1.427	67	3179606	264.031
11) n-Pentane	(1)	1.470	43	3004196M	256.562
10) Trichlorofluoromethane	(1)	1.488	101	2871410	274.320
13) Ethyl Ether	(1)	1.580	59	1593275	258.529
14) Freon 123a	(1)	1.598	67	1940142A	267.245
15) Acrolein	(4)	1.653	56	7082577	3059.619
16) 1,1-Dichloroethene	(1)	1.726	96	1581406	285.056
17) Acetone	(1)	1.744	58	718091	499.529
18) Freon 113	(1)	1.750	101	1730624	286.343
20) Methyl Iodide	(1)	1.823	142	3054992	289.479
21) 2-Propanol	(4)	1.823	45	1067962M	1260.011
22) Carbon Disulfide	(1)	1.872	76	5143677	294.430
24) Allyl Chloride	(1)	1.938	41	2946732	280.508
25) Methyl Acetate	(1)	1.945	43	2649027	259.756
26) Methylene Chloride	(1)	2.024	84	1877191	275.611
28)*t-Butyl Alcohol-d10	(4)	2.036	65	337961	250.000
29) t-Butyl Alcohol	(4)	2.103	59	3045768M	1598.478
30) Acrylonitrile	(1)	2.188	53	1445023	258.350
31) trans-1,2-Dichloroethene	(1)	2.218	96	1925732	288.501
32) Methyl Tertiary Butyl Ether	(1)	2.237	73	6822416	282.728
33) n-Hexane	(1)	2.437	57	3400362	290.547
34) 1,1-Dichloroethane	(1)	2.553	63	3870681	294.417
36) di-Isopropyl Ether	(1)	2.632	45	7172341	277.400
37) 2-Chloro-1,3-Butadiene	(1)	2.632	53	3405631	288.182
39) Ethyl t-Butyl Ether	(1)	2.954	59	6732965	275.155
40) cis-1,2-Dichloroethene	(1)	3.058	96	2203197	293.404
41) 2-Butanone	(1)	3.070	43	4549209	550.687
42) 2,2-Dichloropropane	(1)	3.082	77	3062821	298.077
43) Propionitrile	(4)	3.119	54	3331806	1615.584
46) Methacrylonitrile	(1)	3.265	67	3840528	718.904
47) Bromochloromethane	(1)	3.277	128	1128348	290.223
48) Tetrahydrofuran	(4)	3.319	71	1223744	641.403

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 07/11/2012 at 18:08.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Chloroform	(1)	3.356	83	3621178	290.729
52)$Dibromofluoromethane	(1)	3.502	113	286575	49.835
51)$Dibromofluoromethane(mz111)	(1)	3.502	111	295196	50.260
53) 1,1,1-Trichloroethane	(1)	3.532	97	3342540	293.413
54) Cyclohexane (mz 84)	(1)	3.593	84	3143443	290.730
56) Cyclohexane	(1)	3.593	56	3840962M	290.101
55) Cyclohexane (mz 69)	(1)	3.593	69	1166380	291.684
45) 1,2-Dichloroethene (total)	(1)		96	4128929	582.349
57) 1,1-Dichloropropene	(1)	3.678	75	2983142	293.261
58) Carbon Tetrachloride	(1)	3.691	117	2736401	297.672
61)$1,2-Dichloroethane-d4(mz65)	(1)	3.812	65	370104	49.569
60)$1,2-Dichloroethane-d4(mz104)	(1)	3.812	104	47843	50.257
62)$1,2-Dichloroethane-d4	(1)	3.812	102	73702	49.866
59) Isobutyl Alcohol	(4)	3.824	41	2151130	3702.001
63) Benzene	(1)	3.873	78	8398793	288.451
64) 1,2-Dichloroethane (mz 98)	(1)	3.885	98	280998	294.247
65) 1,2-Dichloroethane	(1)	3.885	62	3152538	290.272
69) t-Amyl Methyl Ether	(1)	4.013	73	6631548	290.083
71)*Fluorobenzene	(1)	4.147	96	1238196	50.000
72) n-Heptane	(1)	4.165	43	3999664	303.476
73) n-Butanol	(4)	4.481	56	3926366	7370.945
74) Trichloroethene	(1)	4.512	95	2191041	293.548
75) Methylcyclohexane (mz98)	(1)	4.713	98	1743265	291.497
76) Methylcyclohexane	(1)	4.713	83	3860739	289.910
77) 1,2-Dichloropropane	(1)	4.725	63	2316371	288.890
78) Dibromomethane	(1)	4.840	93	1488203	292.853
79) 1,4-Dioxane	(4)	4.871	88	557687	3988.540
80) Methyl Methacrylate	(1)	4.889	69	2482084	292.954
83) Bromodichloromethane	(1)	5.017	83	2815789	298.399
85) 2-Nitropropane	(1)	5.248	41	2375351	570.270
86) 2-Chloroethyl Vinyl Ether	(1)	5.357	63	1903358	287.875
87) cis-1,3-Dichloropropene	(1)	5.491	75	3615524	294.234
89) 4-Methyl-2-Pentanone	(1)	5.680	43	8511986	542.617
93)$Toluene-d8	(2)	5.771	98	1227880	50.085
92)$Toluene-d8(mz100)	(2)	5.771	100	896356	53.210
94) Toluene	(2)	5.844	92	5419557	290.051
95) trans-1,3-Dichloropropene	(2)	6.094	75	3632713	296.732
96) Ethyl Methacrylate	(2)	6.240	69	3932407	293.879

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:39.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,1,2-Trichloroethane	(2)	6.282	97	2093508	292.767
98) Tetrachloroethene	(2)	6.434	166	2562229	295.439
99) 1,3-Dichloropropane	(2)	6.459	76	3737259	290.847
101) 2-Hexanone	(2)	6.592	43	7000349	548.838
102) Dibromochloromethane	(2)	6.702	129	2328905	303.422
104) 1,2-Dibromoethane	(2)	6.805	107	2348897	294.706
106)*Chlorobenzene-d5	(2)	7.335	117	896991	50.000
107) Chlorobenzene	(2)	7.365	112	6101210	289.181
108) 1,1,1,2-Tetrachloroethane	(2)	7.462	131	2164671	295.732
109) Ethylbenzene	(2)	7.499	91	10224597	282.984
110) m+p-Xylene	(2)	7.627	106	7954750	567.096
113) o-Xylene	(2)	7.992	106	3954366	284.237
114) Styrene	(2)	8.004	104	6756492	283.906
115) Bromoform	(2)	8.144	173	1965423	310.320
112) Xylene (Total)	(2)		106	11909116	851.333
116) Isopropylbenzene	(2)	8.332	105	9842317	274.894
118) Cyclohexanone	(4)	8.375	55	2763960	3905.281
120)$4-Bromofluorobenzene(mz174)	(2)	8.442	174	396959	50.117
119)$4-Bromofluorobenzene	(2)	8.442	95	453311	49.880
121) Bromobenzene	(3)	8.551	156	2763713	295.524
122) 1,1,2,2-Tetrachloroethane	(3)	8.588	83	3514122	293.945
123) 1,2,3-Trichloropropane	(3)	8.606	110	1134726	297.236
124) trans-1,4-Dichloro-2-Butene	(3)	8.636	53	3211519	750.652
125) n-Propylbenzene	(3)	8.679	91	10800179	268.335
126) 2-Chlorotoluene	(3)	8.728	126	2531335	292.808
128) 4-Chlorotoluene	(3)	8.819	126	2599355	288.967
127) 1,3,5-Trimethylbenzene	(3)	8.825	105	8351507	276.140
130) tert-Butylbenzene	(3)	9.075	134	1985400	285.224
131) Pentachloroethane	(3)	9.075	167	1668029	285.935
132) 1,2,4-Trimethylbenzene	(3)	9.111	105	8578448	276.060
133) sec-Butylbenzene	(3)	9.245	105	9893777	267.351
134) 1,3-Dichlorobenzene	(3)	9.306	146	5148875	289.985
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	515827	50.000
135) p-Isopropyltoluene	(3)	9.360	119	9003672	269.083
138) 1,4-Dichlorobenzene	(3)	9.373	146	5206935	286.699
139) 1,2,3-Trimethylbenzene	(3)	9.421	105	8386598	265.720
141) Benzyl Chloride	(3)	9.476	91	7585952	290.928
142) 1,3-Diethylbenzene	(3)	9.579	119	5563214	273.446

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:39
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dichlorobenzene	(3)	9.640	146	4687234	278.861
143) 1,4-Diethylbenzene	(3)	9.640	119	5626031	269.002
145) n-Butylbenzene	(3)	9.652	92	4605116	279.771
146) 1,2-Diethylbenzene	(3)	9.719	119	4649702	273.112
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	1022579	298.356
149) 1,3,5-Trichlorobenzene	(3)	10.340	180	3850014	277.069
150) 1,2,4-Trichlorobenzene	(3)	10.748	180	3524890	272.380
151) Hexachlorobutadiene	(3)	10.869	225	1794767	276.940
152) Naphthalene	(3)	10.900	128	10020061	227.020
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	3410504	271.131
154) 2-Methylnaphthalene	(3)	11.624	142	6062473	241.696

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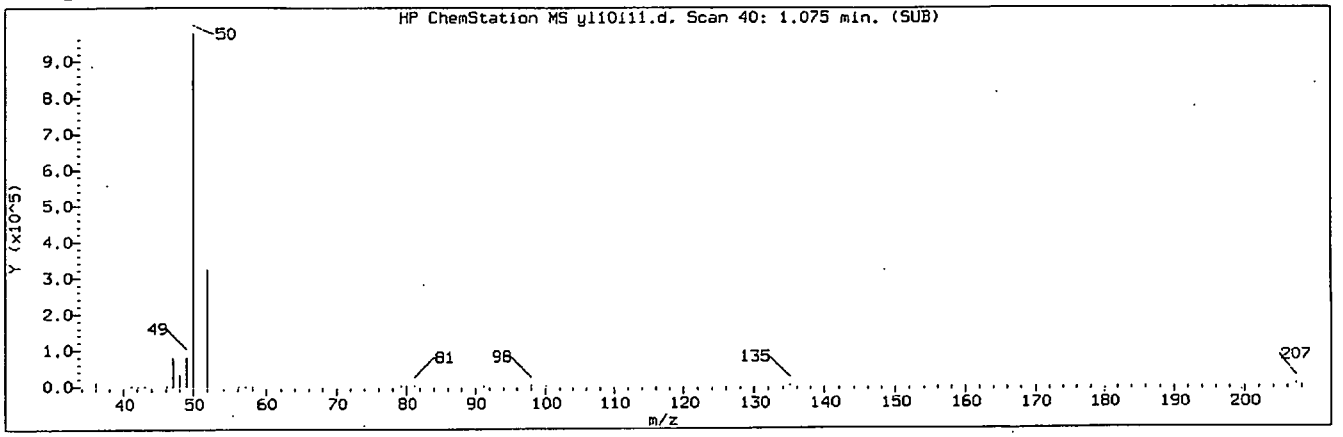
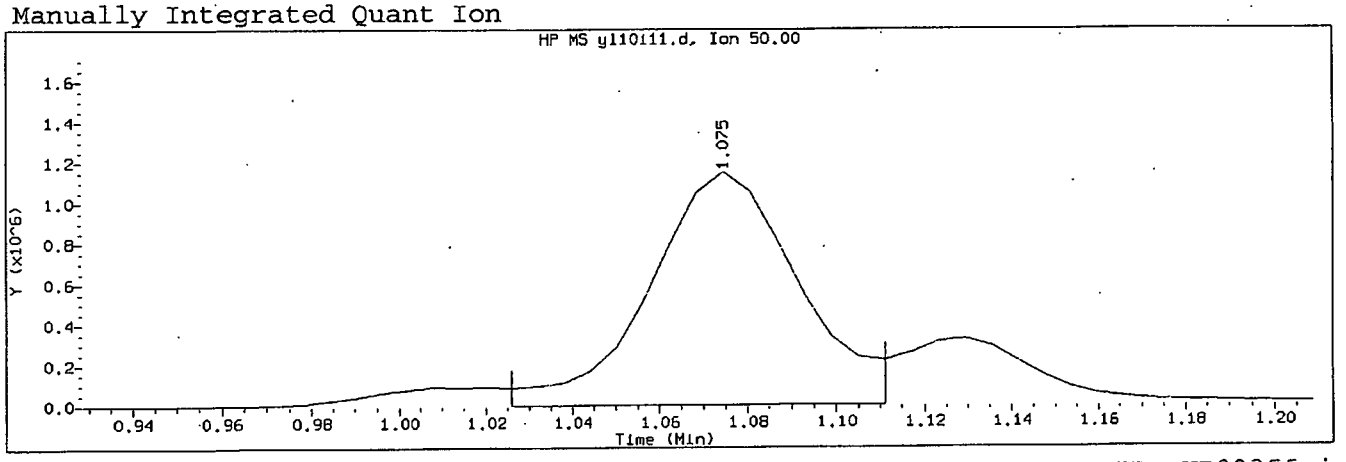
on 07/10/2012 at 14:39.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

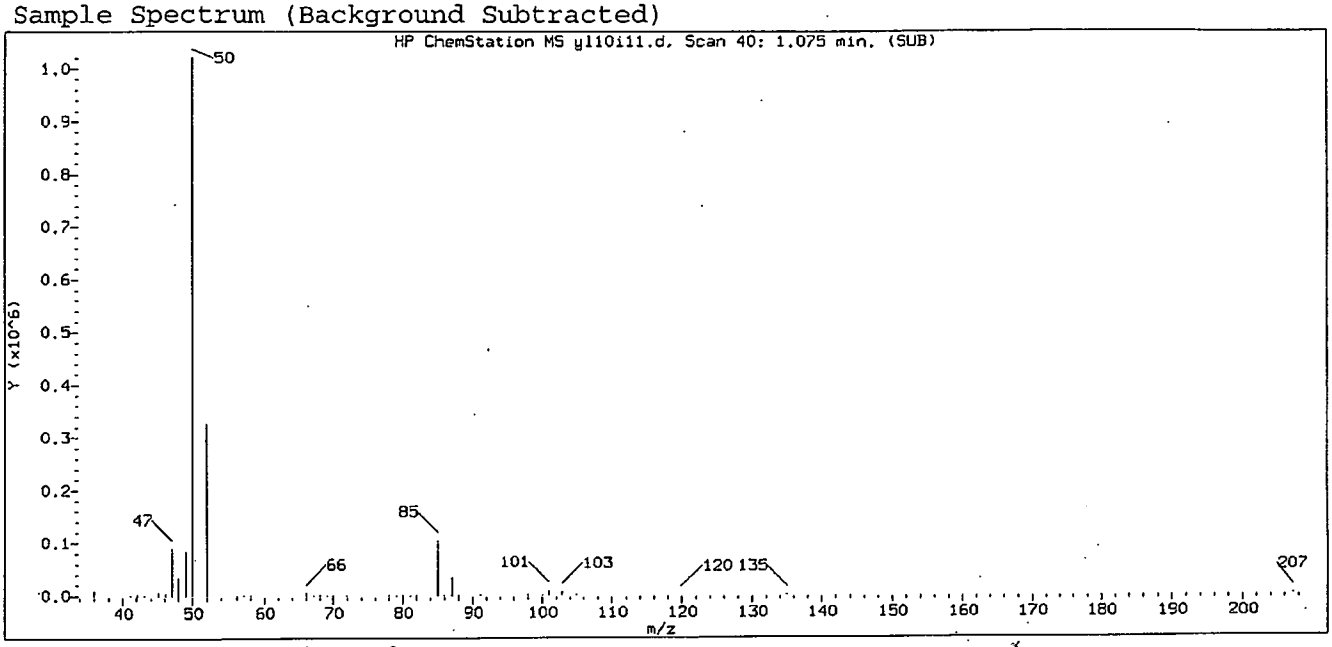
Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 40		
Retention Time (minutes)	: 1.075		
Quant Ion	: 50.00		
Area (flag)	: 2730610M		
On-Column Amount (ng)	: 286.4370		
Integration start scan	: 31	Integration stop scan:	45
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

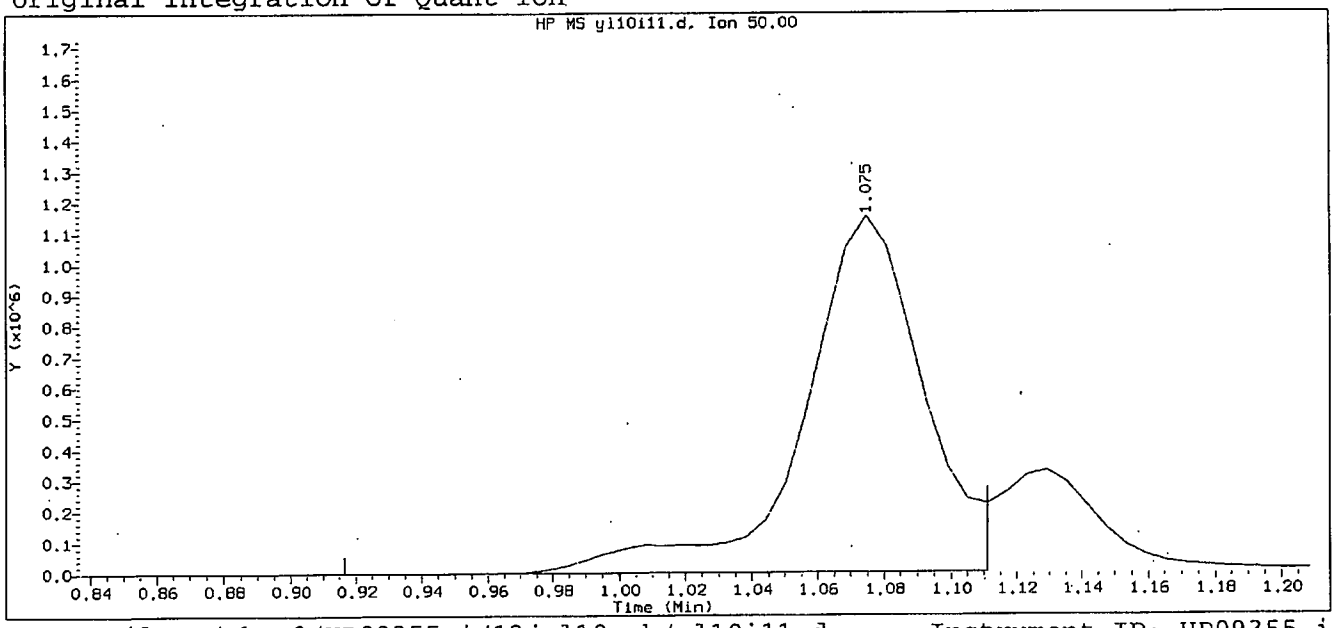
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:39
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

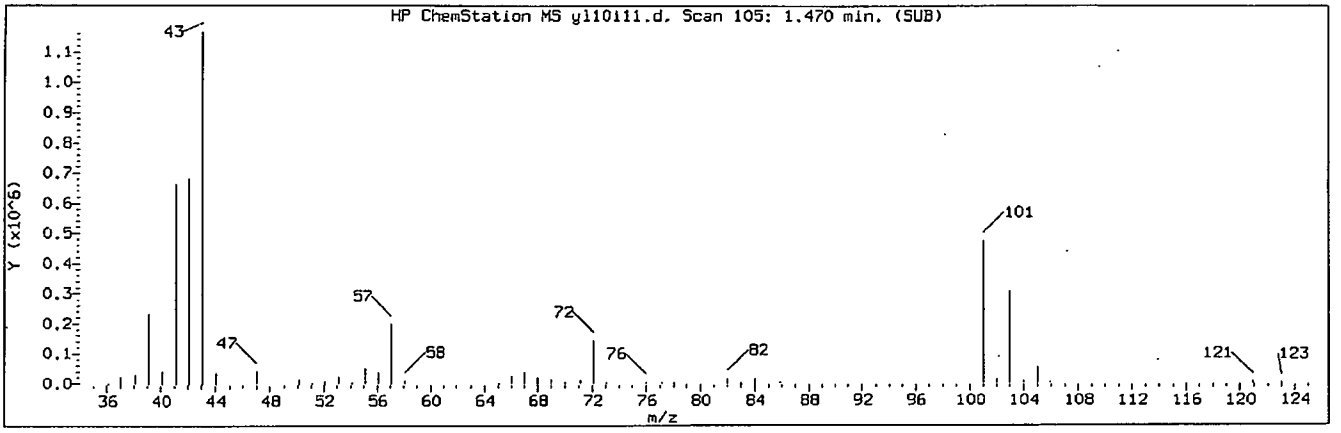
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

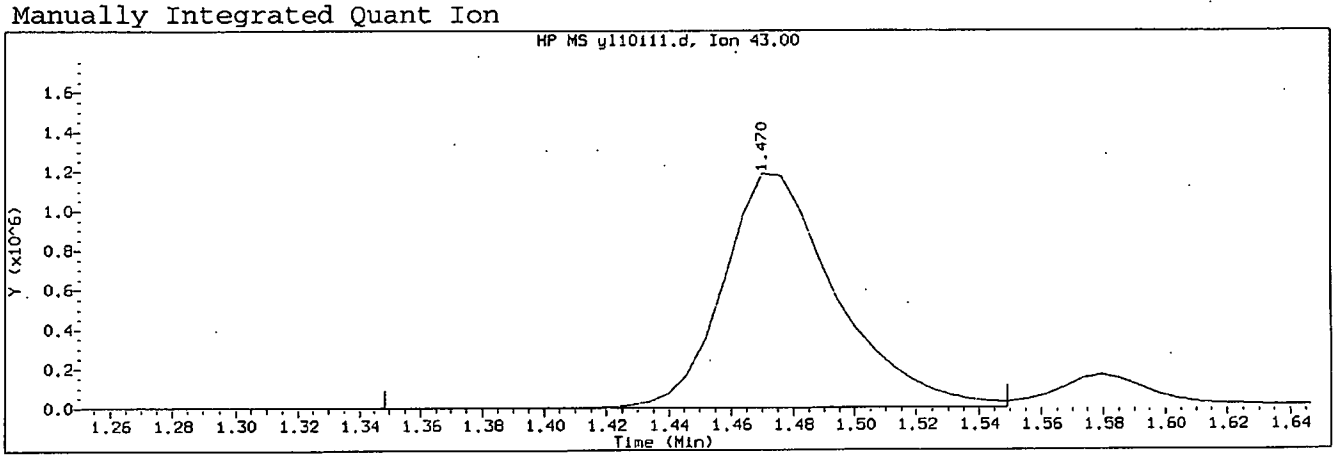
Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 40		
Retention Time (minutes)	: 1.075		
Quant Ion	: 50.00		
Area	: 2867413		
On-column Amount (ng)	: 286.3182		
Integration start scan	: 13	Integration stop scan:	45
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

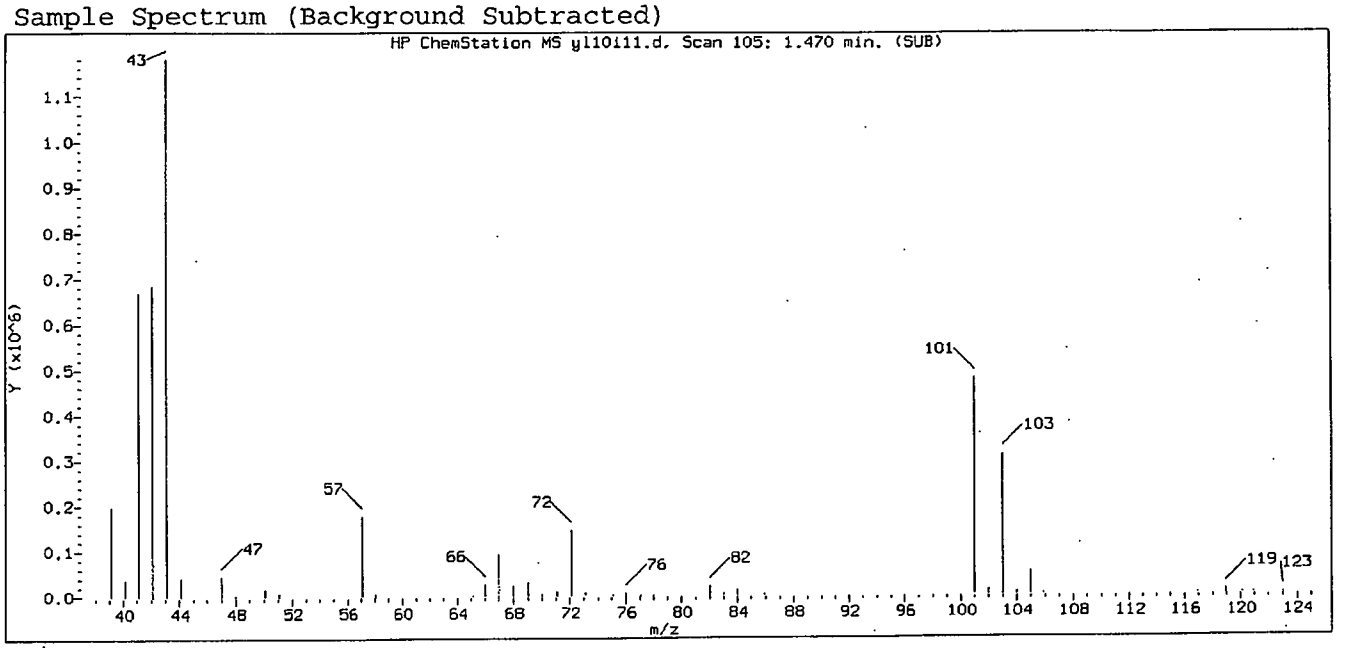
Compound Number	: 11		
Compound Name	: n-Pentane		
Scan Number	: 105		
Retention Time (minutes)	: 1.470		
Quant Ion	: 43.00		
Area (flag)	: 3004196M		
On-Column Amount (ng)	: 271.1671		
Integration start scan	: 84	Integration stop scan:	117
Y at integration start	: 1410	Y at integration end:	1410

Reason for manual integration: improper integration

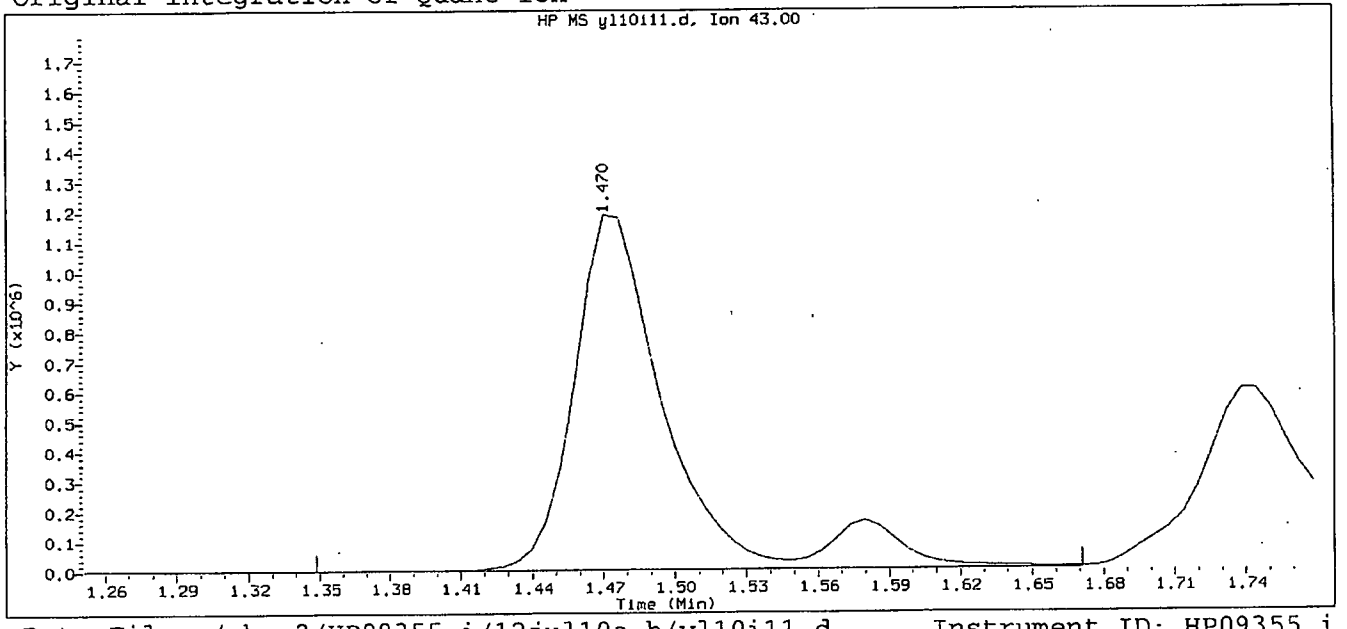
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39 Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

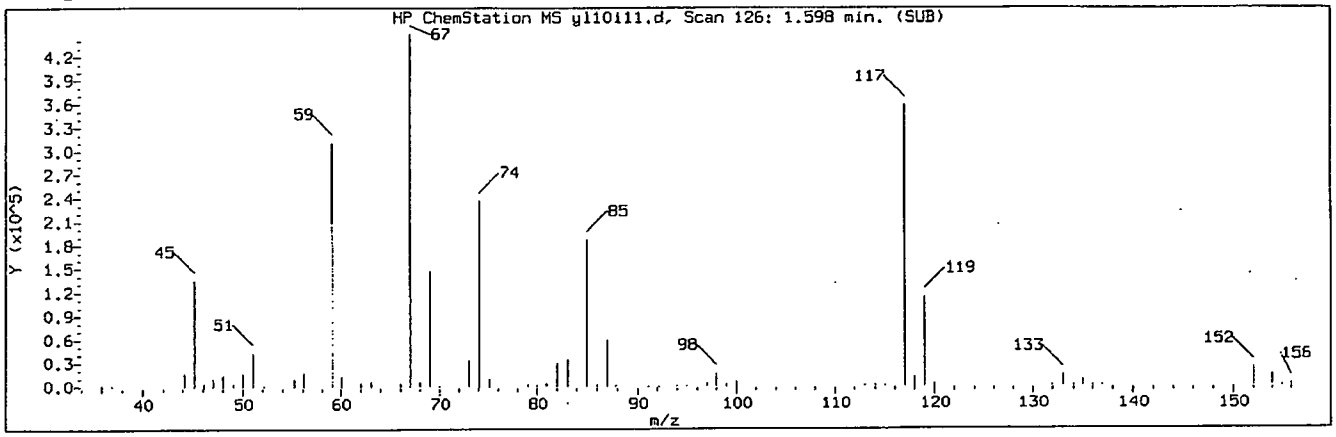
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

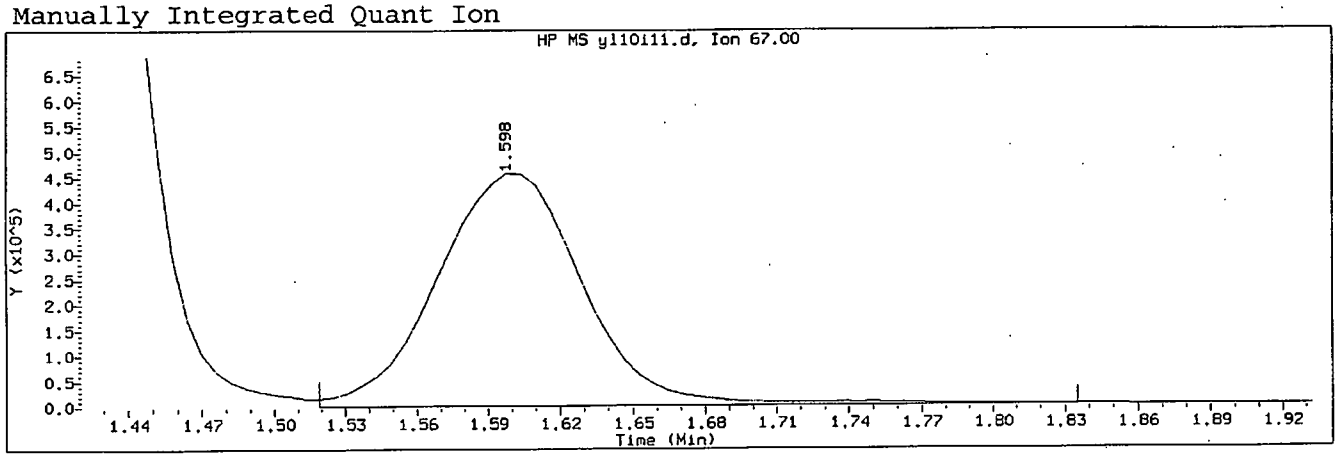
Compound Number	: 11		
Compound Name	: n-Pentane		
Scan Number	: 105		
Retention Time (minutes)	: 1.470		
Quant Ion	: 43.00		
Area	: 3368228		
On-column Amount (ng)	: 293.3166		
Integration start scan	: 84	Integration stop scan:	137
Y at integration start	: 1410	Y at integration end:	1410

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

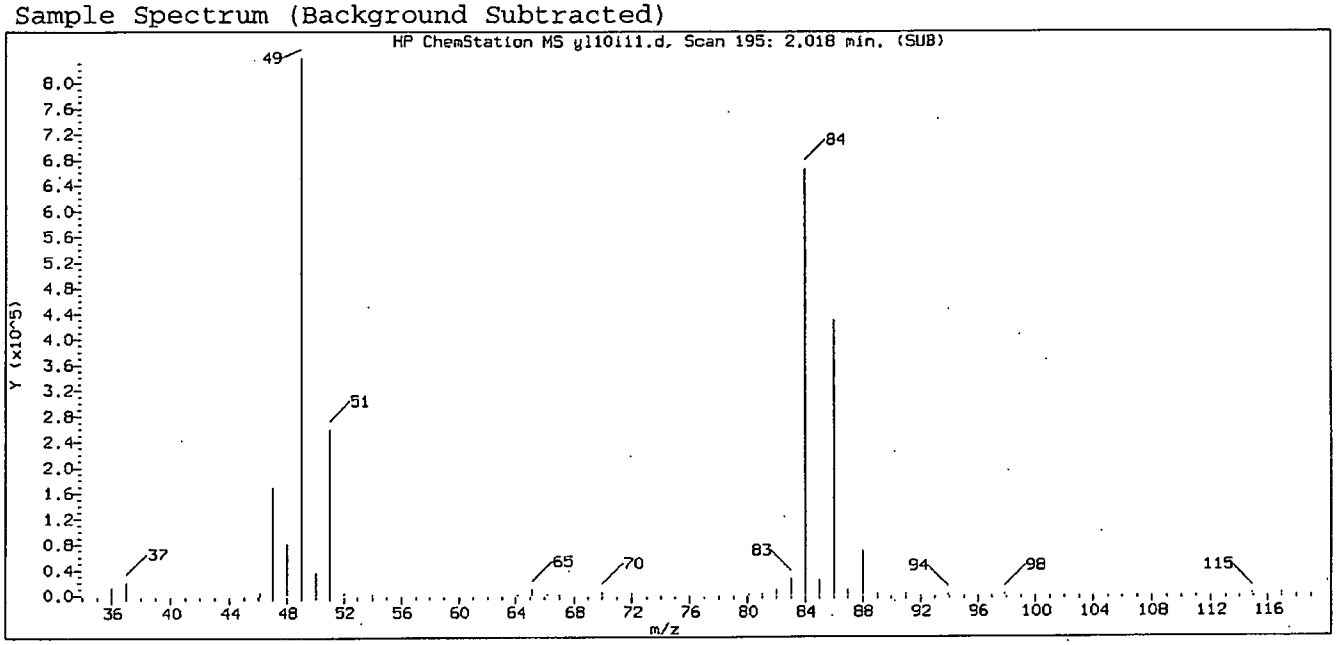
Compound Number	: 14		
Compound Name	: Freon 123a		
Scan Number	: 126		
Retention Time (minutes)	: 1.598		
Quant Ion	: 67.00		
Area (flag)	: 1940142A		
On-Column Amount (ng)	: 288.9896		
Integration start scan	: 112	Integration stop scan:	164
Y at integration start	: 788	Y at integration end:	1313

Reason for manual integration: improper integration

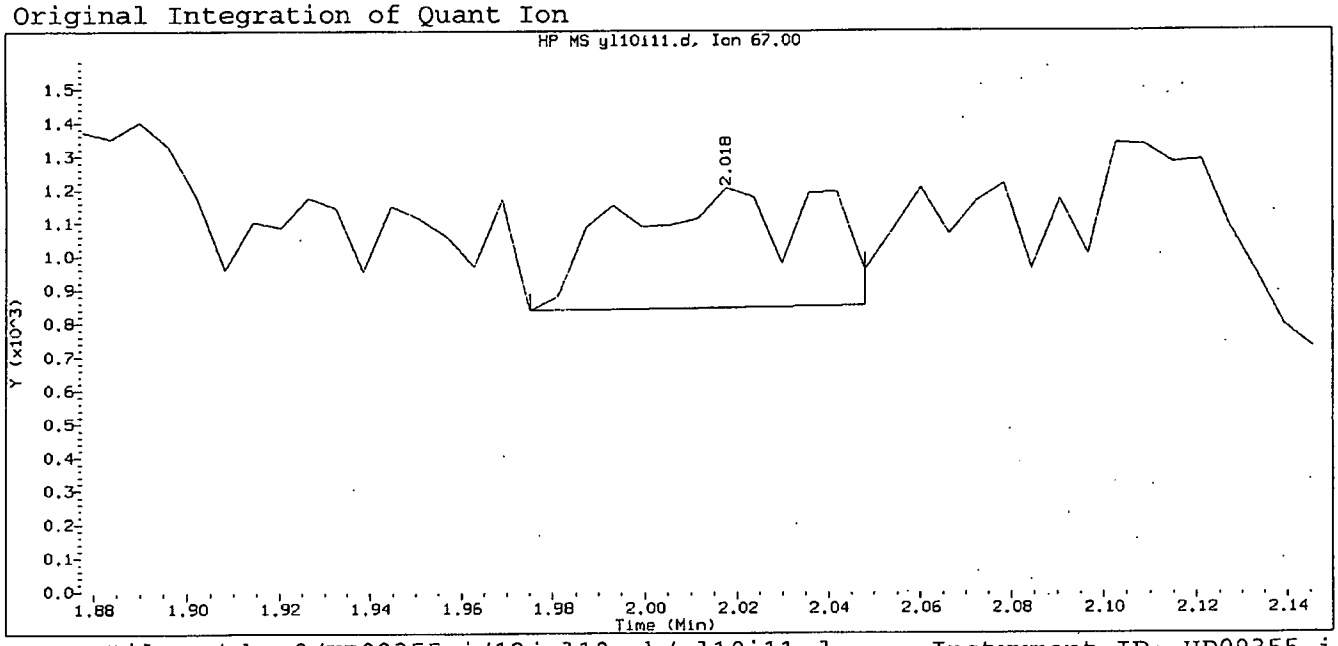
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39 Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

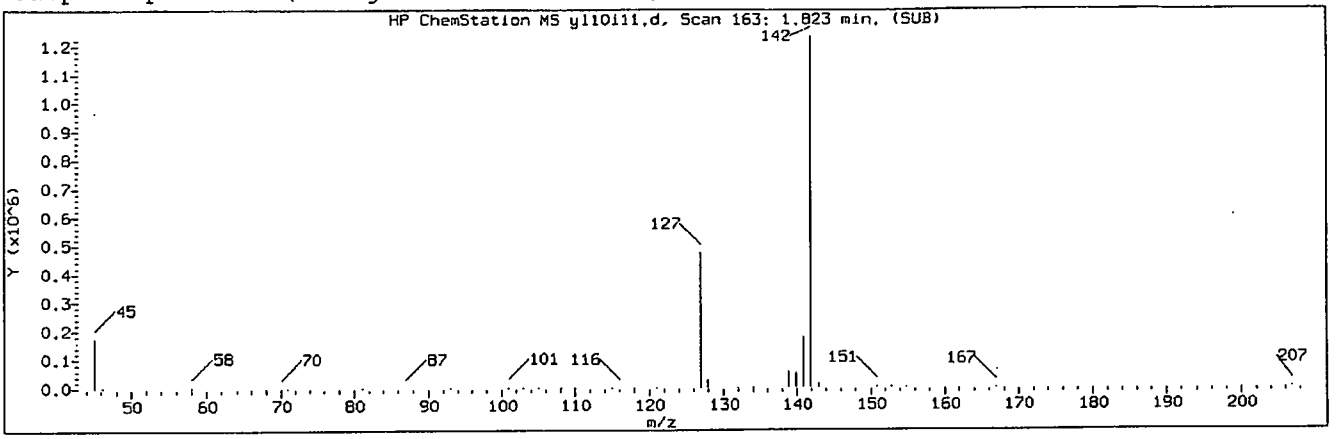
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

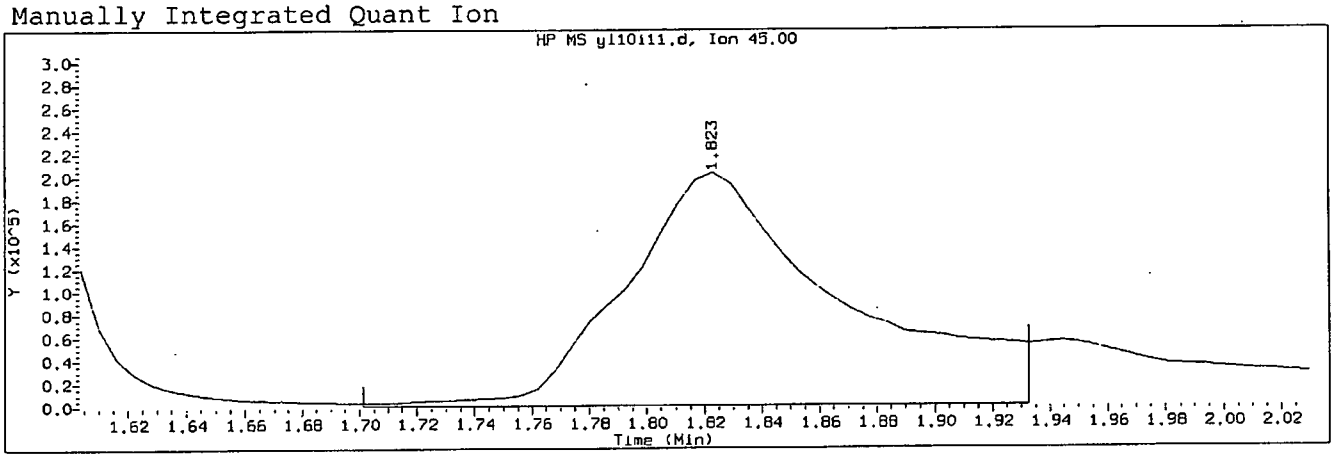
Compound Number	: 14		
Compound Name	: Freon 123a		
Scan Number	: 195		
Retention Time (minutes)	: 2.018		
Quant Ion	: 67.00		
Area	: 1066		
On-column Amount (ng)	: 20.6172		
Integration start scan	: 187	Integration stop scan:	199
Y at integration start	: 837	Y at integration end:	848

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 11-JUL-2012 18:07
Date, time and analyst ID of latest file update: 11-Jul-2012 18:07 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

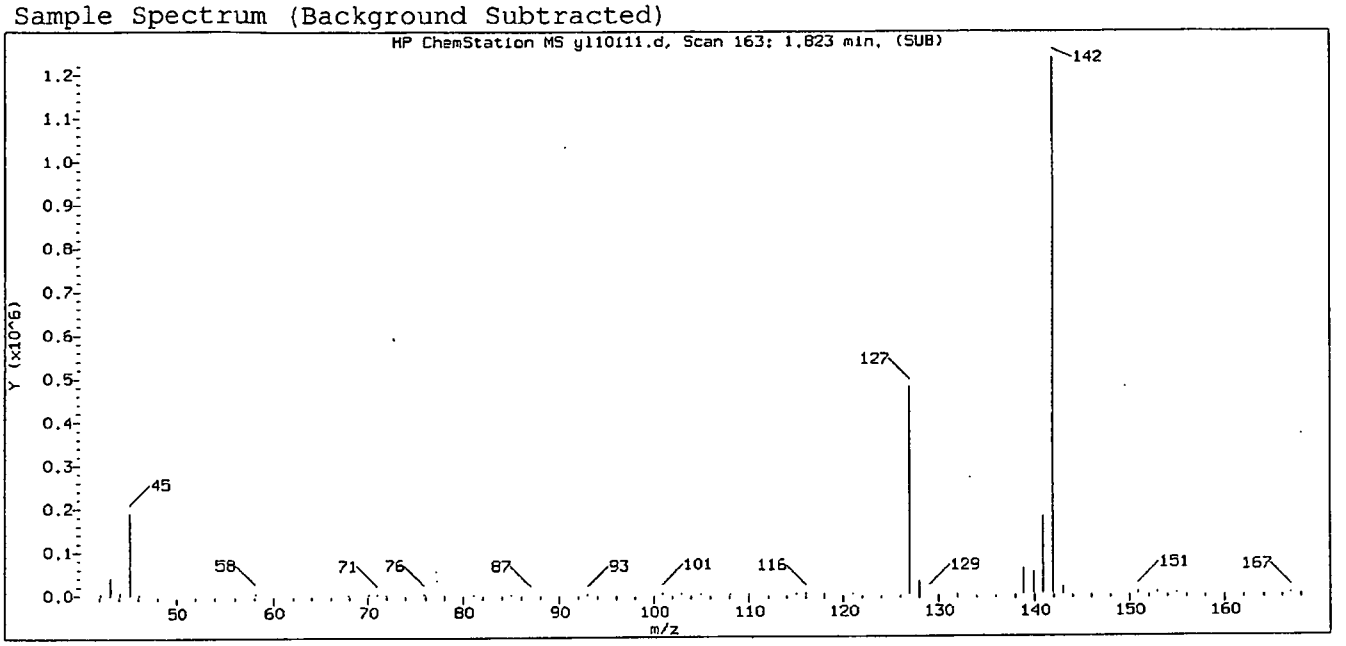
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 163
Retention Time (minutes): 1.823
Quant Ion : 45.00
Area (flag) : 1067962M
On-Column Amount (ng) : 1260.0107
Integration start scan : 142 Integration stop scan: 180
Y at integration start : 396 Y at integration end: 396

Reason for manual integration: improper integration

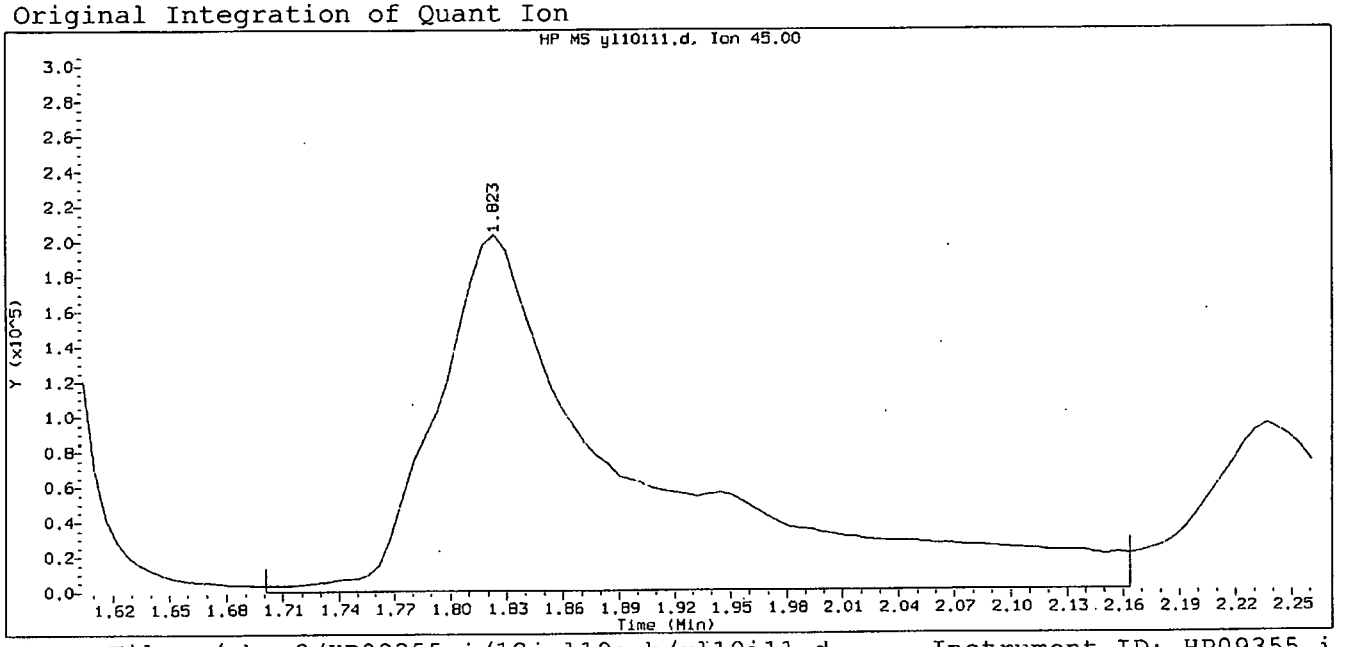
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 07/11/2012 at 18:08.
Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

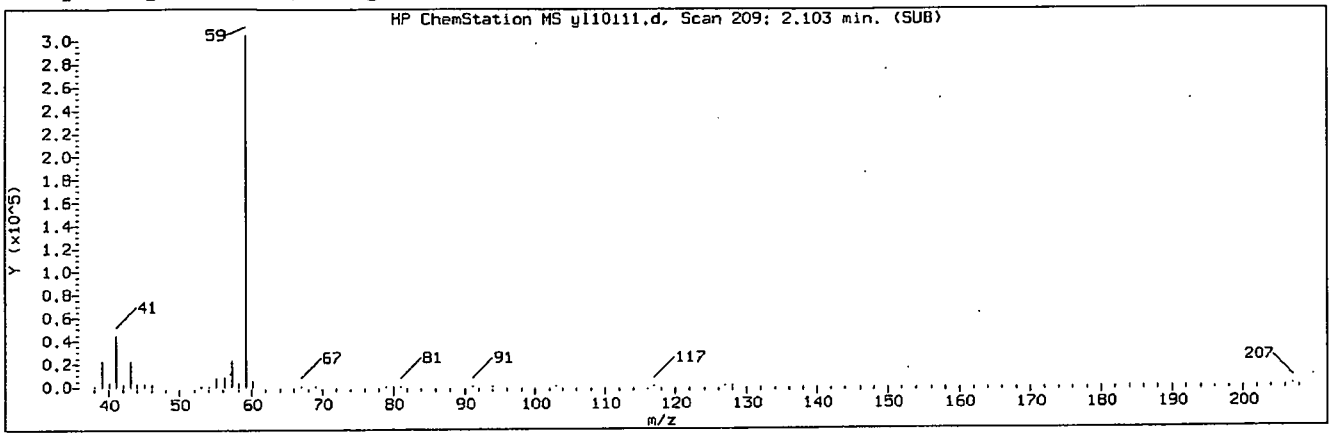
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

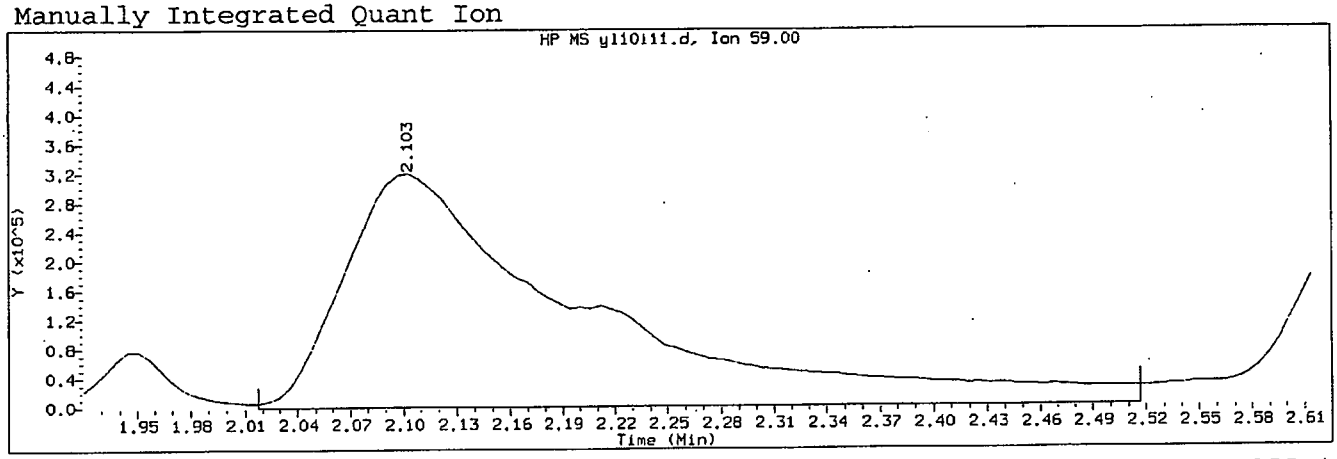
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 163		
Retention Time (minutes)	: 1.823		
Quant Ion	: 45.00		
Area	: 1485439		
On-column Amount (ng)	: 1401.9076		
Integration start scan	: 142	Integration stop scan:	218
Y at integration start	: 396	Y at integration end:	396

Digitally signed by Sara E. Johnson on 07/11/2012 at 18:08.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

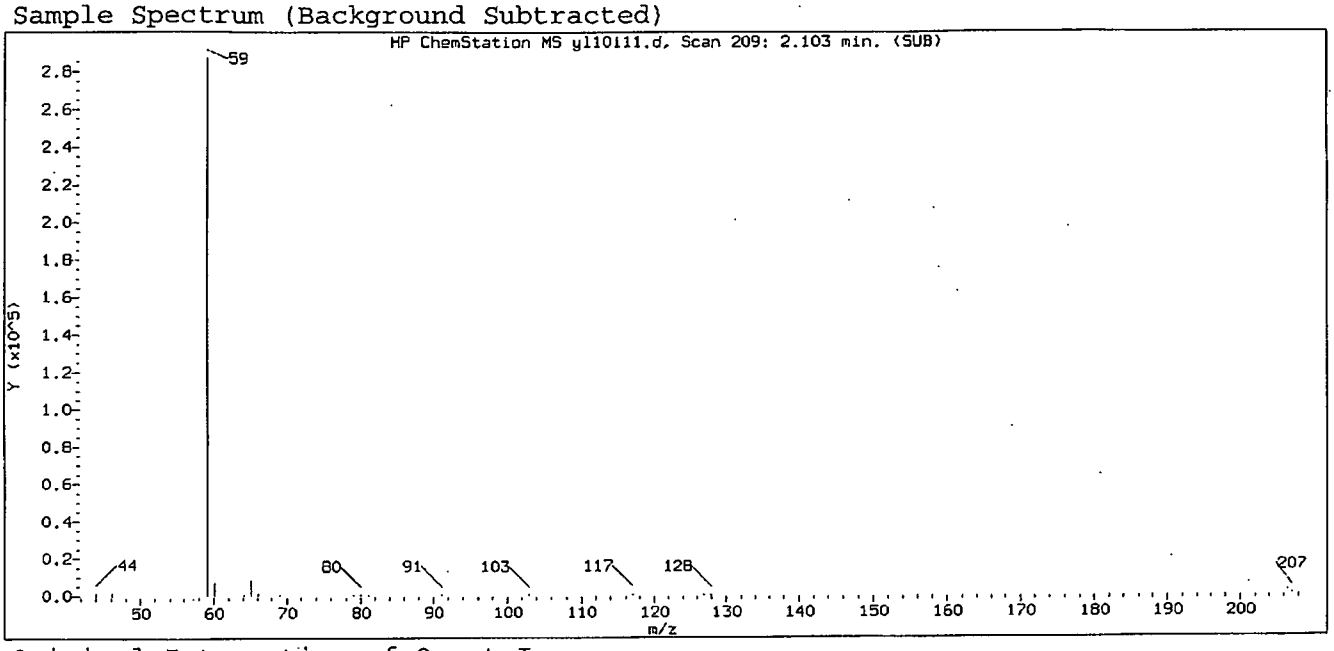
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 209		
Retention Time (minutes)	: 2.103		
Quant Ion	: 59.00		
Area (flag)	: 3045768M		
On-Column Amount (ng)	: 1512.6289		
Integration start scan	: 194	Integration stop scan:	276
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

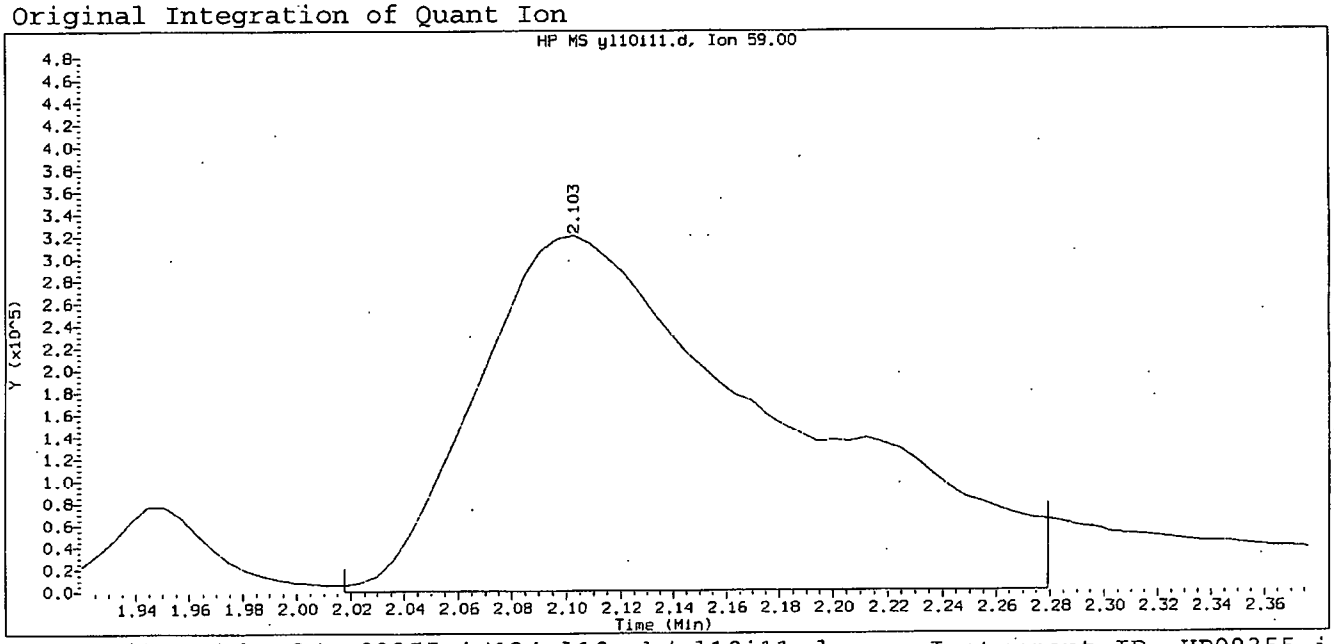
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 209		
Retention Time (minutes)	: 2.103		
Quant Ion	: 59.00		
Area	: 2513943		
On-column Amount (ng)	: 1472.9593		
Integration start scan	: 194	Integration stop scan:	237
Y at integration start	: 0	Y at integration end:	0

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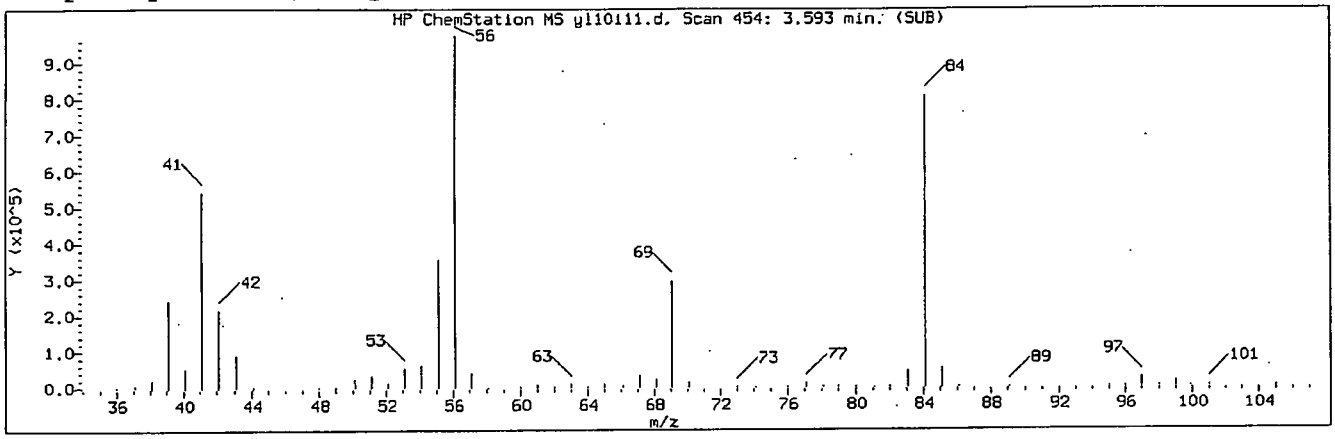
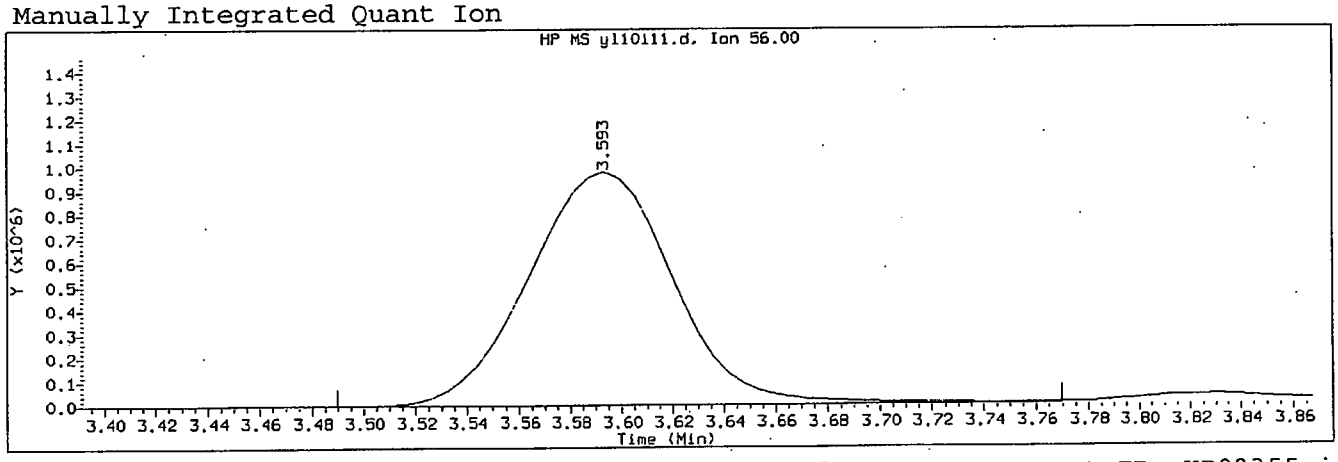
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

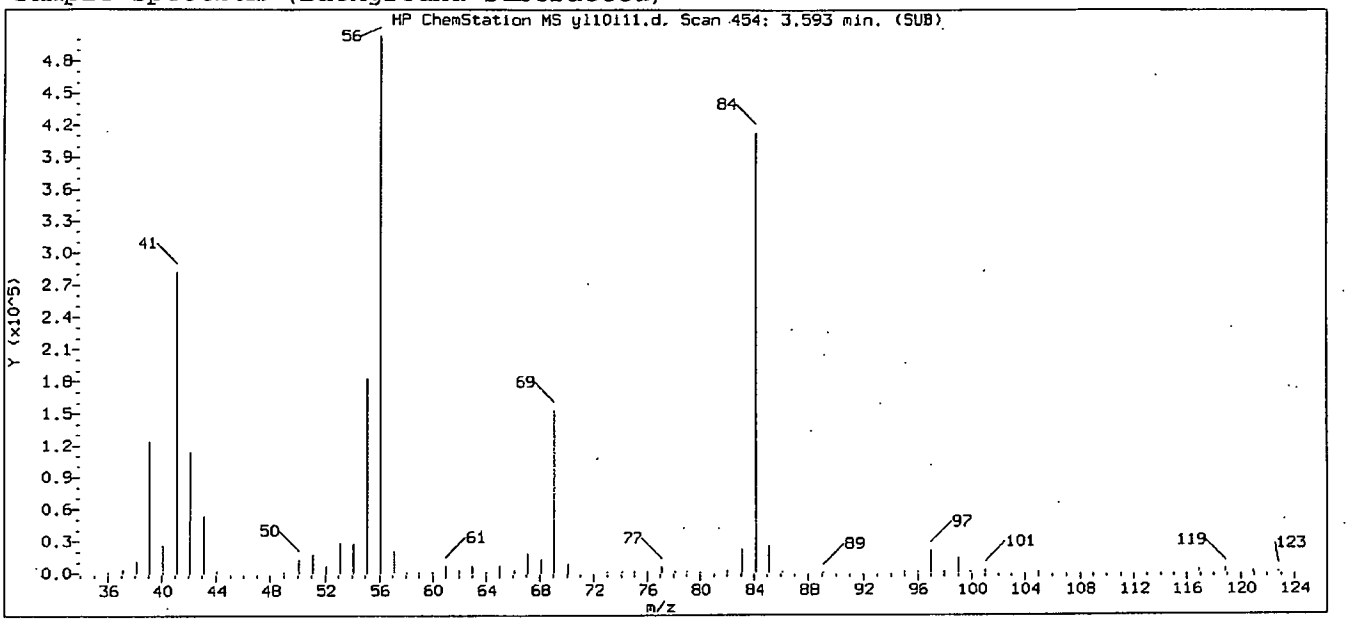
Compound Number	: 56		
Compound Name	: Cyclohexane		
Scan Number	: 454		
Retention Time (minutes)	: 3.593		
Quant Ion	: 56.00		
Area (flag)	: 3840962M		
On-Column Amount (ng)	: 290.1008		
Integration start scan	: 436	Integration stop scan:	482
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

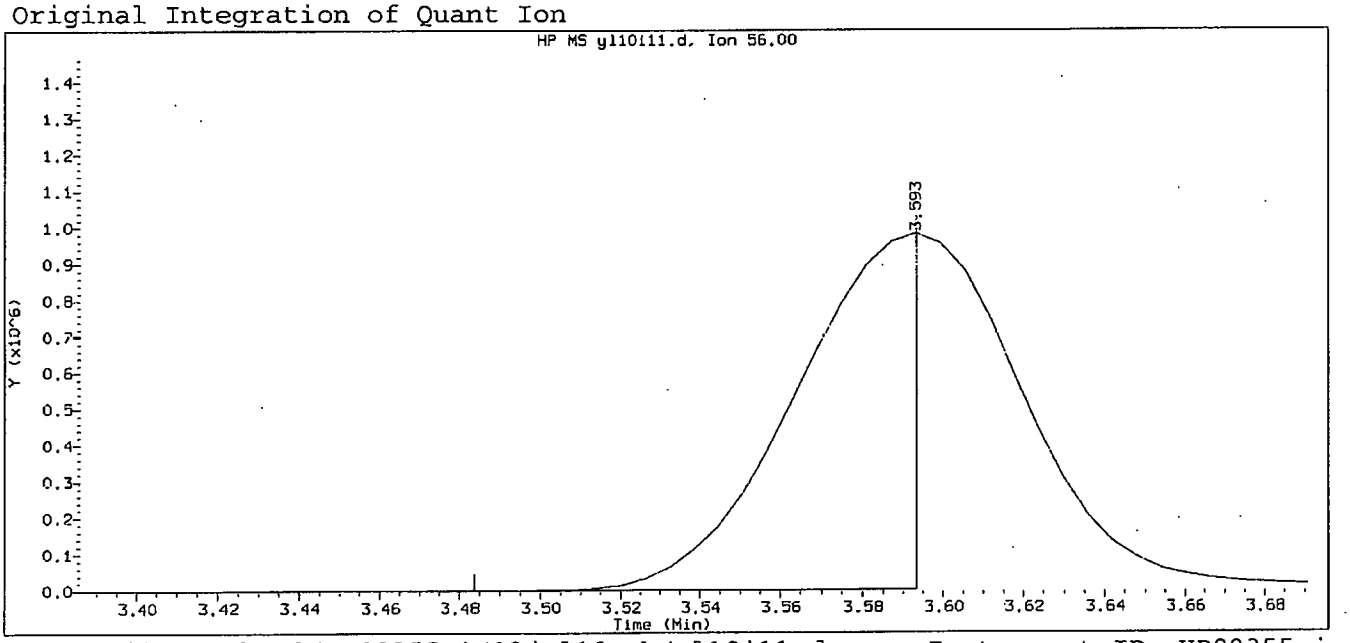
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i11.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 11:58 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 56		
Compound Name	: Cyclohexane		
Scan Number	: 454		
Retention Time (minutes)	: 3.593		
Quant Ion	: 56.00		
Area	: 1959025		
On-column Amount (ng)	: 175.7122		
Integration start scan	: 435	Integration stop scan:	453
Y at integration start	: 371	Y at integration end:	371

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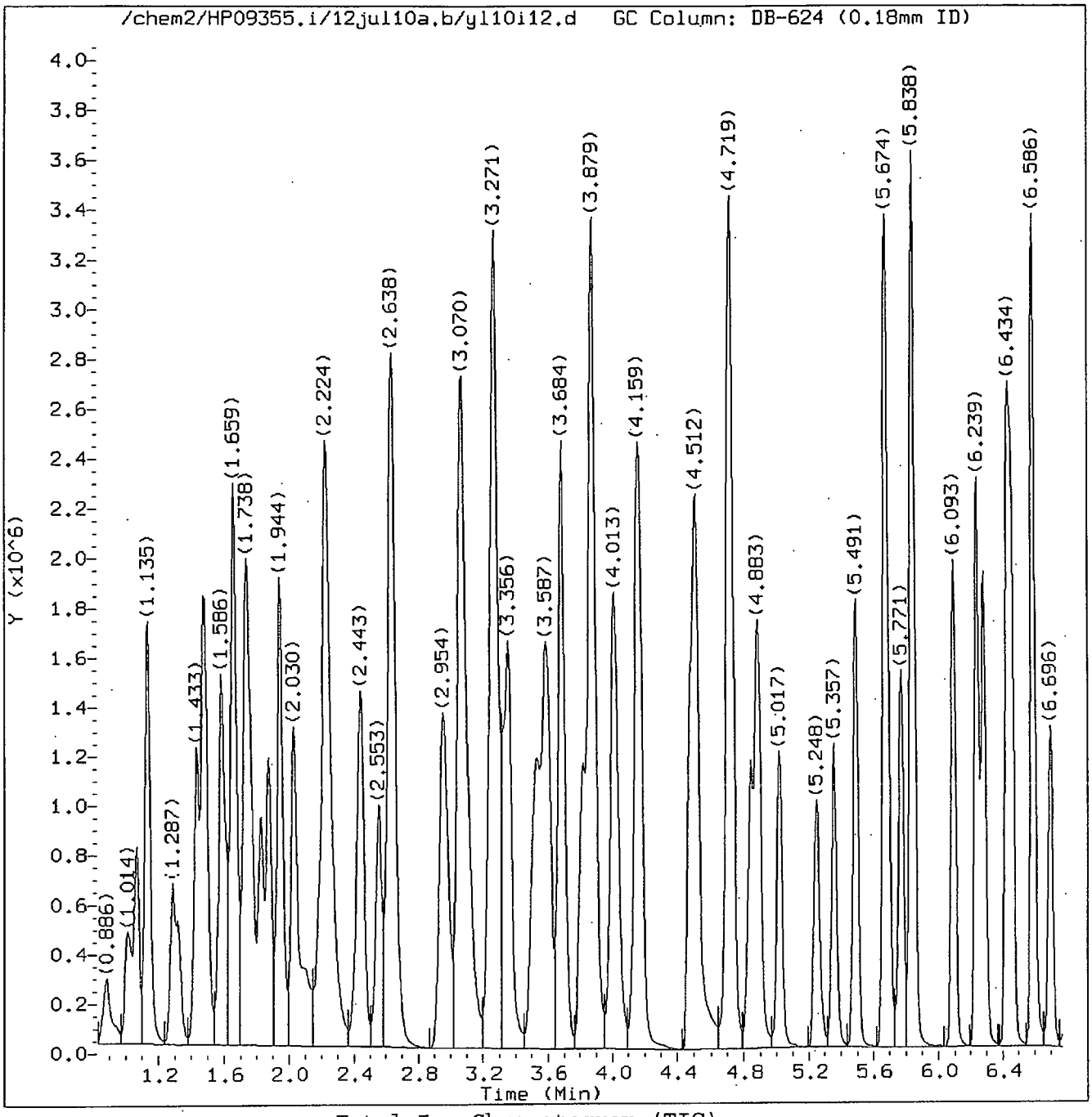
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

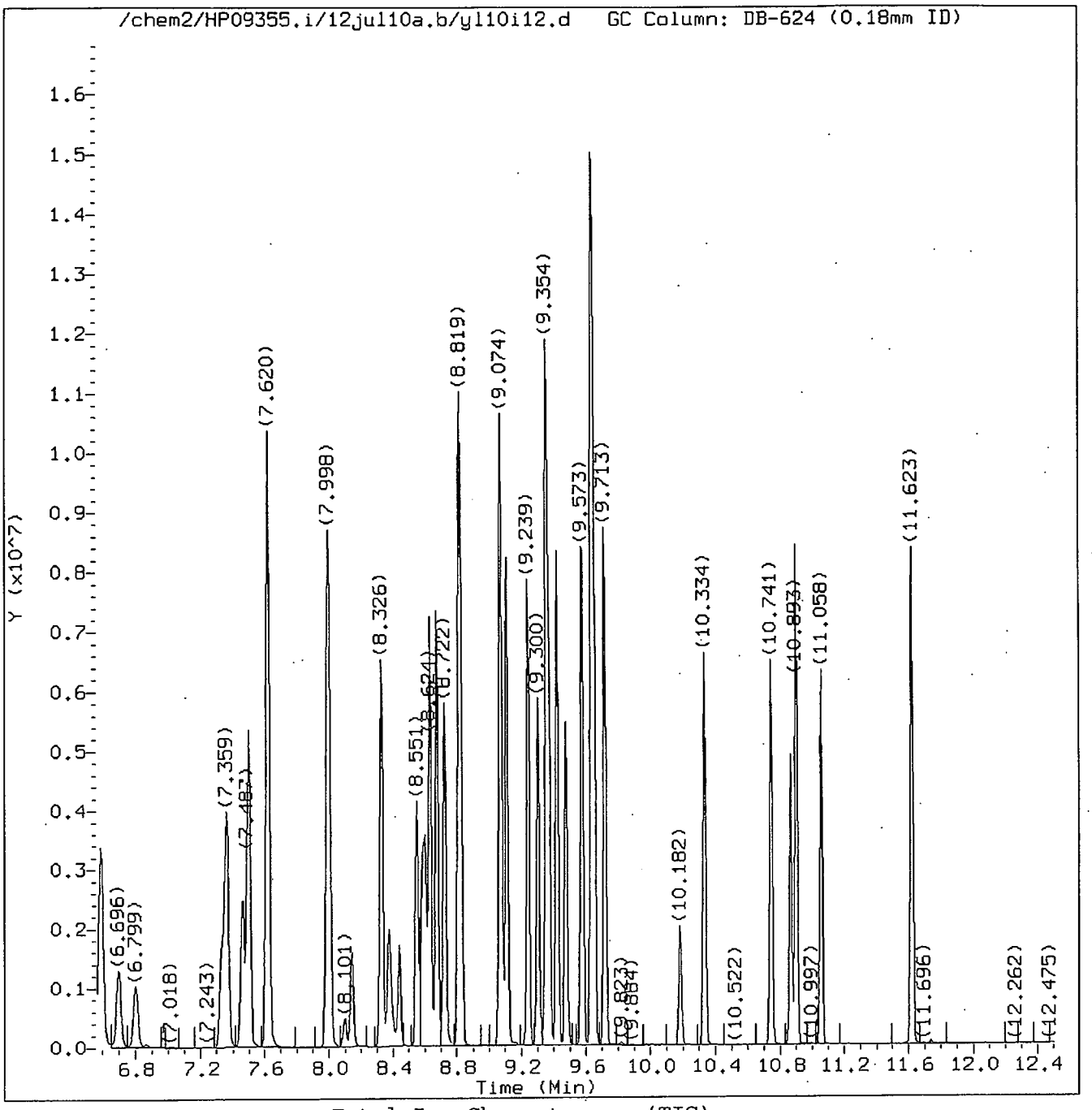
Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:39
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:39
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 11-JUL-2012 18:07
Date, time and analyst ID of latest file update: 11-Jul-2012 18:07 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.014	85	986934	99.576
3) Chloromethane	(1)	1.068	50	956778M	91.987
4) 1,3-Butadiene	(1)	1.129	39	683724	95.923
5) Vinyl Chloride	(1)	1.141	62	923996	94.397
7) Bromomethane	(1)	1.287	94	555754	92.668
8) Chloroethane	(1)	1.324	64	480989	94.470
9) Dichlorofluoromethane	(1)	1.433	67	1159108	96.605
11) n-Pentane	(1)	1.476	43	1144308	98.085
10) Trichlorofluoromethane	(1)	1.494	101	1016053	97.425
13) Ethyl Ether	(1)	1.586	59	615739	100.279
14) Freon 123a	(1)	1.604	67	674324MA	93.226
15) Acrolein	(4)	1.659	56	2794113	1148.299
16) 1,1-Dichloroethene	(1)	1.732	96	555130	100.433
17) Acetone	(1)	1.744	58	281630	196.632
18) Freon 113	(1)	1.756	101	619077	102.807
21) 2-Propanol	(4)	1.823	45	409909M	460.088
20) Methyl Iodide	(1)	1.829	142	1071937	101.946
22) Carbon Disulfide	(1)	1.878	76	1787853	102.715
24) Allyl Chloride	(1)	1.944	41	1052611	100.569
25) Methyl Acetate	(1)	1.951	43	987103	97.148
26) Methylene Chloride	(1)	2.030	84	661673	97.504
28)*t-Butyl Alcohol-d10	(4)	2.042	65	355248	250.000
29) t-Butyl Alcohol	(4)	2.103	59	1080830M	539.638
30) Acrylonitrile	(1)	2.188	53	535553	96.101
31) trans-1,2-Dichloroethene	(1)	2.224	96	659056	99.098
32) Methyl Tertiary Butyl Ether	(1)	2.243	73	2374510	98.764
33) n-Hexane	(1)	2.443	57	1182109	101.378
34) 1,1-Dichloroethane	(1)	2.553	63	1339858	102.289
36) di-Isopropyl Ether	(1)	2.632	45	2511544	97.494
37) 2-Chloro-1,3-Butadiene	(1)	2.638	53	1180180	100.233
39) Ethyl t-Butyl Ether	(1)	2.954	59	2440684	100.110
40) cis-1,2-Dichloroethene	(1)	3.064	96	760250	101.616
41) 2-Butanone	(1)	3.070	43	1731327	210.349
42) 2,2-Dichloropropane	(1)	3.076	77	1053456	102.900
43) Propionitrile	(4)	3.119	54	1165415	537.608
46) Methacrylonitrile	(1)	3.265	67	1354740	254.524
47) Bromochloromethane	(1)	3.277	128	394418	101.821
48) Tetrahydrofuran	(4)	3.325	71	451911	225.335

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

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on 07/11/2012 at 18:08.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Chloroform	(1)	3.356	83	1259287	101.474
52)$Dibromofluoromethane	(1)	3.502	113	287086	50.107
51)$Dibromofluoromethane(mz111)	(1)	3.502	111	291192	49.761
53) 1,1,1-Trichloroethane	(1)	3.532	97	1145773	100.947
54) Cyclohexane (mz 84)	(1)	3.593	84	1096815	101.815
56) Cyclohexane	(1)	3.593	56	1346060	102.039
55) Cyclohexane (mz 69)	(1)	3.593	69	405061	101.668
45) 1,2-Dichloroethene (total)	(1)		96	1419306	200.862
57) 1,1-Dichloropropene	(1)	3.678	75	1026405	101.273
58) Carbon Tetrachloride	(1)	3.690	117	925984	101.101
61)$1,2-Dichloroethane-d4(mz65)	(1)	3.812	65	372283	50.044
60)$1,2-Dichloroethane-d4(mz104)	(1)	3.812	104	47337	49.908
62)$1,2-Dichloroethane-d4	(1)	3.812	102	74127	50.338
59) Isobutyl Alcohol	(4)	3.818	41	790534	1294.272
63) Benzene	(1)	3.873	78	2943783	101.474
64) 1,2-Dichloroethane (mz 98)	(1)	3.885	98	96920M	101.863
65) 1,2-Dichloroethane	(1)	3.885	62	1106015	102.211
69) t-Amyl Methyl Ether	(1)	4.013	73	2346519	103.021
71)*Fluorobenzene	(1)	4.147	96	1233663	50.000
72) n-Heptane	(1)	4.171	43	1321726	100.655
73) n-Butanol	(4)	4.475	56	1439603	2571.047
74) Trichloroethene	(1)	4.512	95	748765	100.686
75) Methylcyclohexane (mz98)	(1)	4.712	98	610621	102.479
76) Methylcyclohexane	(1)	4.712	83	1369207	103.194
77) 1,2-Dichloropropane	(1)	4.725	63	813281	101.802
78) Dibromomethane	(1)	4.840	93	514343	101.586
79) 1,4-Dioxane	(4)	4.865	88	172683	1174.919
80) Methyl Methacrylate	(1)	4.883	69	863008	102.233
83) Bromodichloromethane	(1)	5.017	83	954820	101.557
85) 2-Nitropropane	(1)	5.248	41	874931	210.824
86) 2-Chloroethyl Vinyl Ether	(1)	5.357	63	671156	101.882
87) cis-1,3-Dichloropropene	(1)	5.491	75	1245954	101.769
89) 4-Methyl-2-Pentanone	(1)	5.674	43	3315203	212.112
93)$Toluene-d8	(2)	5.771	98	1221189	49.873
92)$Toluene-d8(mz100)	(2)	5.771	100	819734	48.721
94) Toluene	(2)	5.838	92	1899171	101.767
95) trans-1,3-Dichloropropene	(2)	6.093	75	1248536	102.110
96) Ethyl Methacrylate	(2)	6.239	69	1378010	103.109

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 07/10/2012 at 14:39
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,1,2-Trichloroethane	(2)	6.282	97	728533	102.007
98) Tetrachloroethene	(2)	6.428	166	872361	100.711
99) 1,3-Dichloropropane	(2)	6.458	76	1312790	102.291
101) 2-Hexanone	(2)	6.586	43	2684761	210.748
102) Dibromochloromethane	(2)	6.696	129	780146	101.766
104) 1,2-Dibromoethane	(2)	6.799	107	809289	101.663
106)*Chlorobenzene-d5	(2)	7.328	117	895892	50.000
107) Chlorobenzene	(2)	7.359	112	2147078	101.890
108) 1,1,1,2-Tetrachloroethane	(2)	7.462	131	743889	101.753
109) Ethylbenzene	(2)	7.499	91	3719486	103.070
110) m+p-Xylene	(2)	7.620	106	2877833	205.413
113) o-Xylene	(2)	7.992	106	1431217	103.001
114) Styrene	(2)	8.004	104	2448036	102.992
115) Bromoform	(2)	8.144	173	645691	102.073
112) Xylene (Total)	(2)		106	4309050	308.414
116) Isopropylbenzene	(2)	8.326	105	3714539	103.874
118) Cyclohexanone	(4)	8.375	55	891673	1198.564
120)$4-Bromofluorobenzene(mz174)	(2)	8.442	174	396099	50.069
119)$4-Bromofluorobenzene	(2)	8.442	95	456701	50.315
121) Bromobenzene	(3)	8.551	156	968608	100.913
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	1248646	101.763
123) 1,2,3-Trichloropropane	(3)	8.600	110	396181	101.112
124) trans-1,4-Dichloro-2-Butene	(3)	8.630	53	1101525	250.854
125) n-Propylbenzene	(3)	8.673	91	4333466	104.901
126) 2-Chlorotoluene	(3)	8.728	126	904206	101.906
128) 4-Chlorotoluene	(3)	8.813	126	943920	102.239
127) 1,3,5-Trimethylbenzene	(3)	8.825	105	3239353	104.357
130) tert-Butylbenzene	(3)	9.074	134	742117	103.875
131) Pentachloroethane	(3)	9.074	167	638217	106.594
132) 1,2,4-Trimethylbenzene	(3)	9.111	105	3334487	104.550
133) sec-Butylbenzene	(3)	9.239	105	4019251	105.819
134) 1,3-Dichlorobenzene	(3)	9.306	146	1857338	101.918
135) p-Isopropyltoluene	(3)	9.354	119	3633928	105.814
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	529426	50.000
138) 1,4-Dichlorobenzene	(3)	9.373	146	1911033	102.521
139) 1,2,3-Trimethylbenzene	(3)	9.421	105	3479819	107.422
141) Benzyl Chloride	(3)	9.476	91	2774876	103.686
142) 1,3-Diethylbenzene	(3)	9.579	119	2209540	105.815

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:39.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

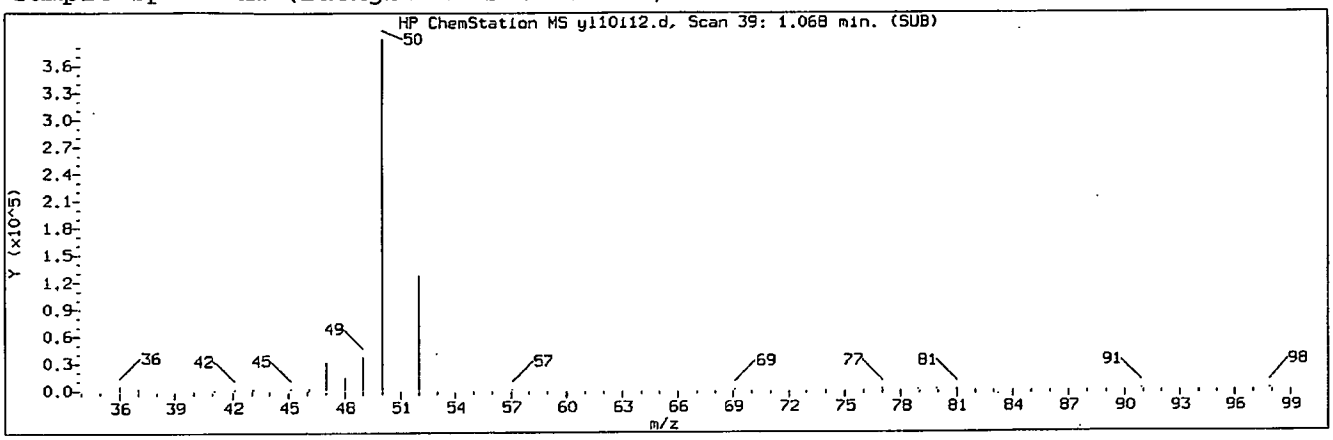
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

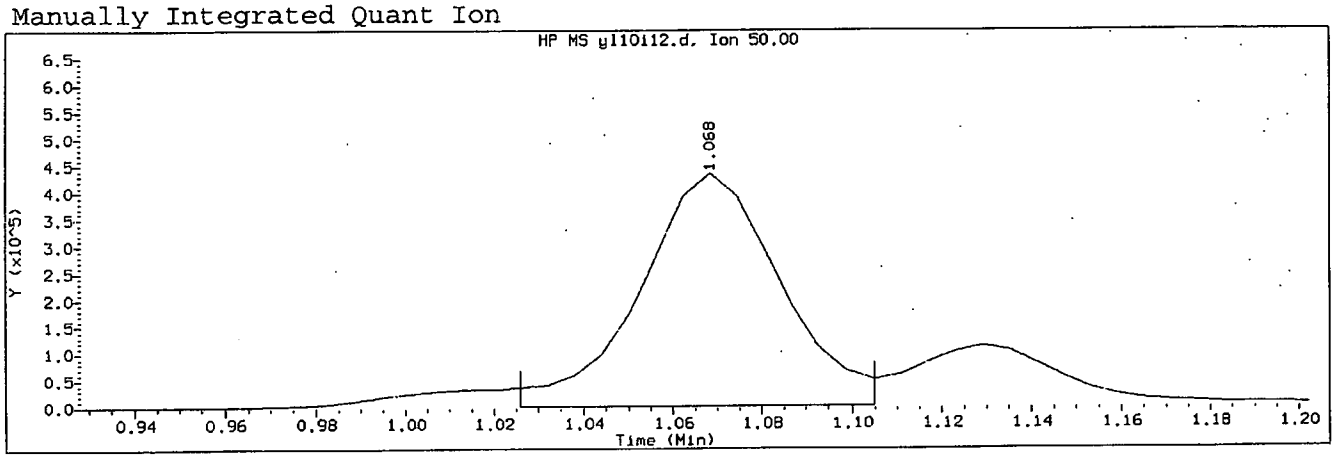
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
143) 1,4-Diethylbenzene	(3)	9.634	119	2293820	106.859
144) 1,2-Dichlorobenzene	(3)	9.640	146	1803139	104.520
145) n-Butylbenzene	(3)	9.652	92	1767019	104.593
146) 1,2-Diethylbenzene	(3)	9.713	119	1855344	106.179
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	359181	102.106
149) 1,3,5-Trichlorobenzene	(3)	10.334	180	1509963	105.874
150) 1,2,4-Trichlorobenzene	(3)	10.741	180	1412109	106.315
151) Hexachlorobutadiene	(3)	10.863	225	709123	106.610
152) Naphthalene	(3)	10.899	128	4550384	100.448
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	1376117	106.590
154) 2-Methylnaphthalene	(3)	11.623	142	2918343	113.359

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:39.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

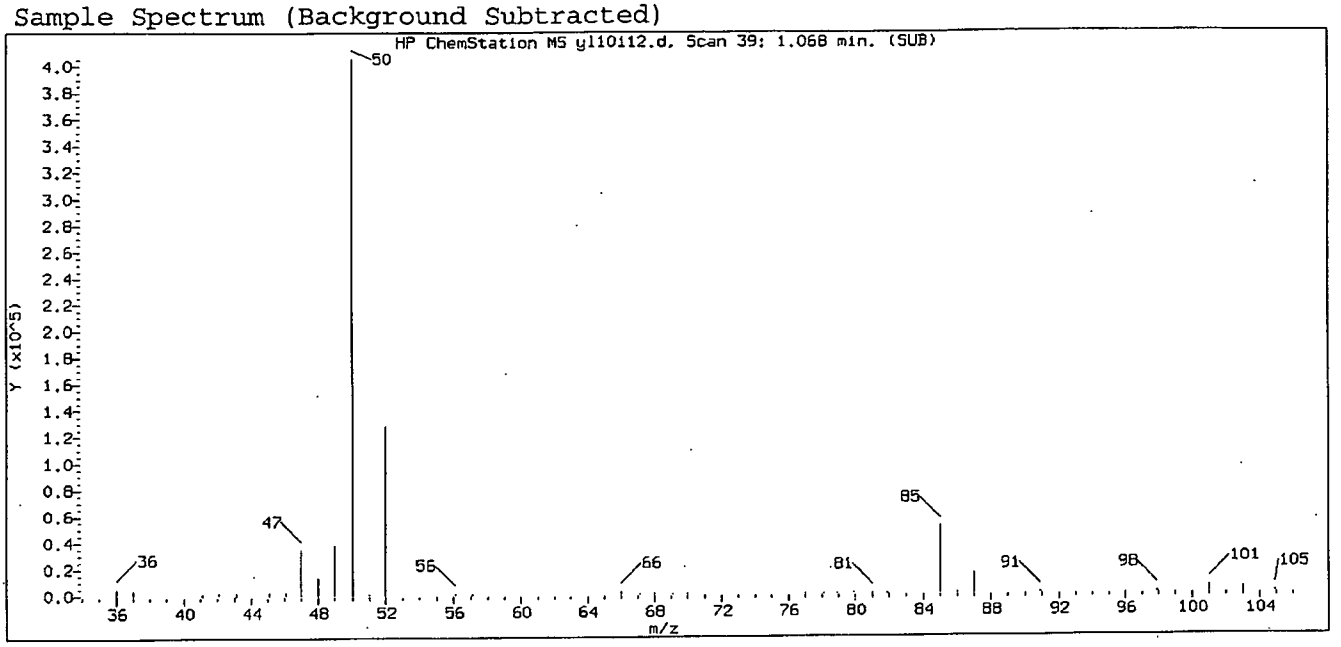
Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 39		
Retention Time (minutes)	: 1.068		
Quant Ion	: 50.00		
Area (flag)	: 956778M		
On-Column Amount (ng)	: 100.7334		
Integration start scan	: 31	Integration stop scan:	44
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

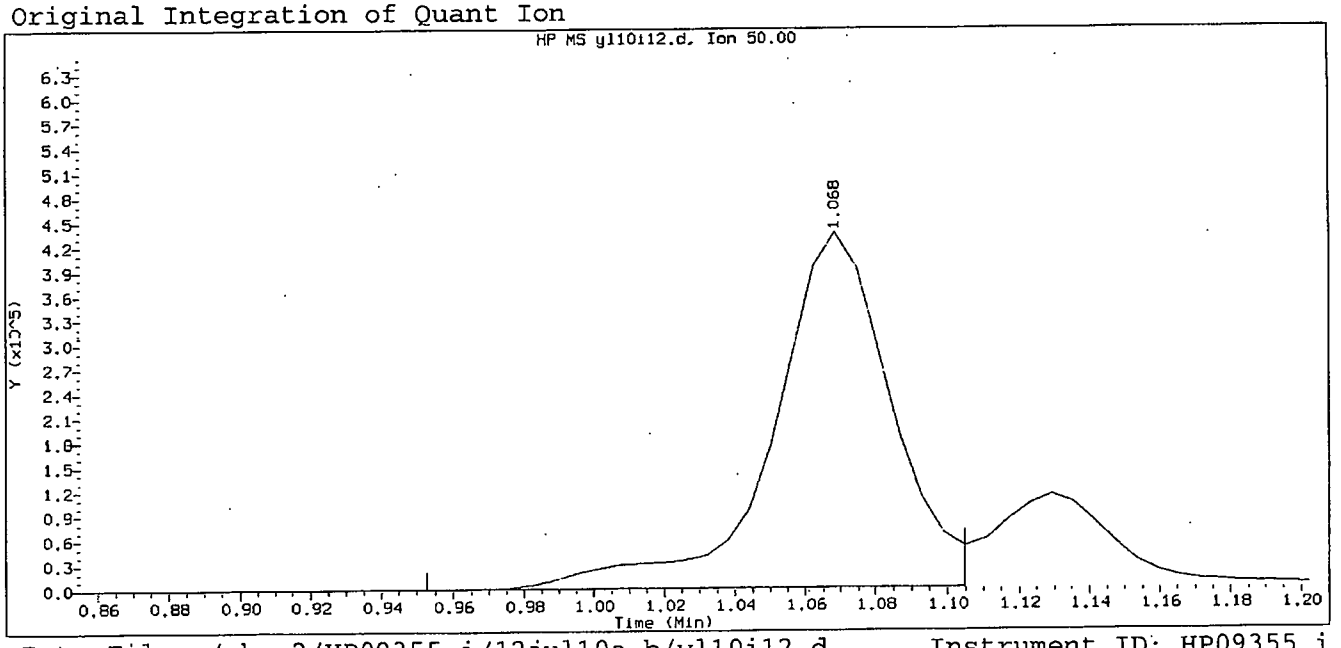
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39 Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 39		
Retention Time (minutes)	: 1.068		
Quant Ion	: 50.00		
Area	: 1004369		
On-column Amount (ng)	: 100.6572		
Integration start scan	: 19	Integration stop scan:	44
Y at integration start	: 0	Y at integration end:	0

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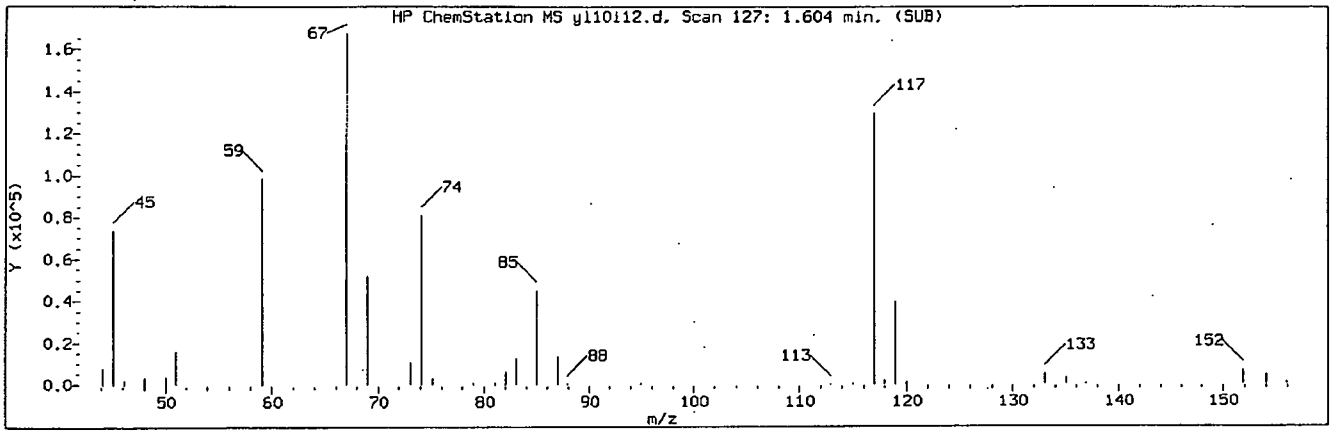
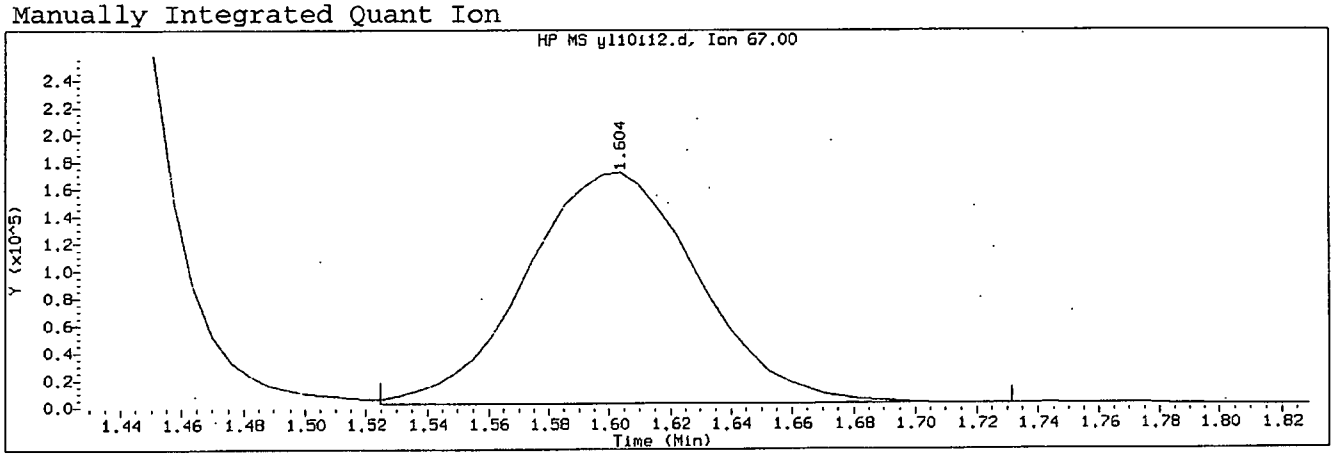
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

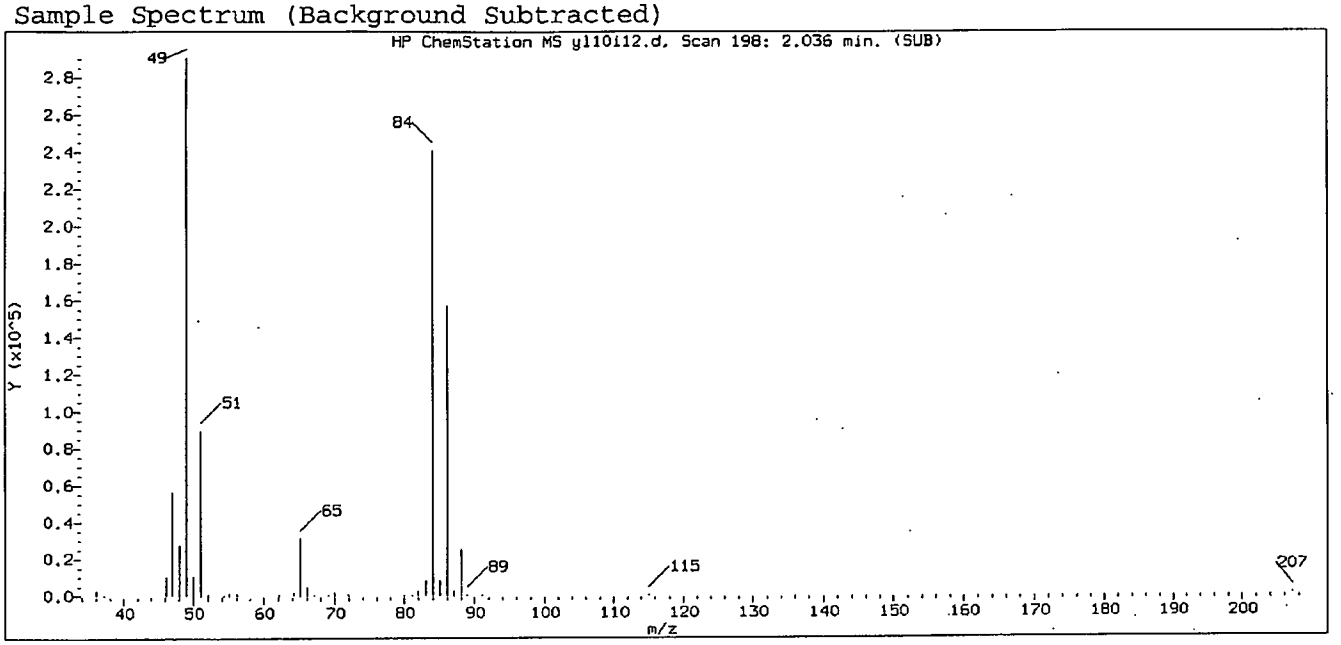
Compound Number	: 14		
Compound Name	: Freon 123a		
Scan Number	: 127		
Retention Time (minutes)	: 1.604		
Quant Ion	: 67.00		
Area (flag)	: 674324MA		
On-Column Amount (ng)	: 100.8115		
Integration start scan	: 113	Integration stop scan:	147
Y at integration start	: 2468	Y at integration end:	2468

Reason for manual integration: improper integration

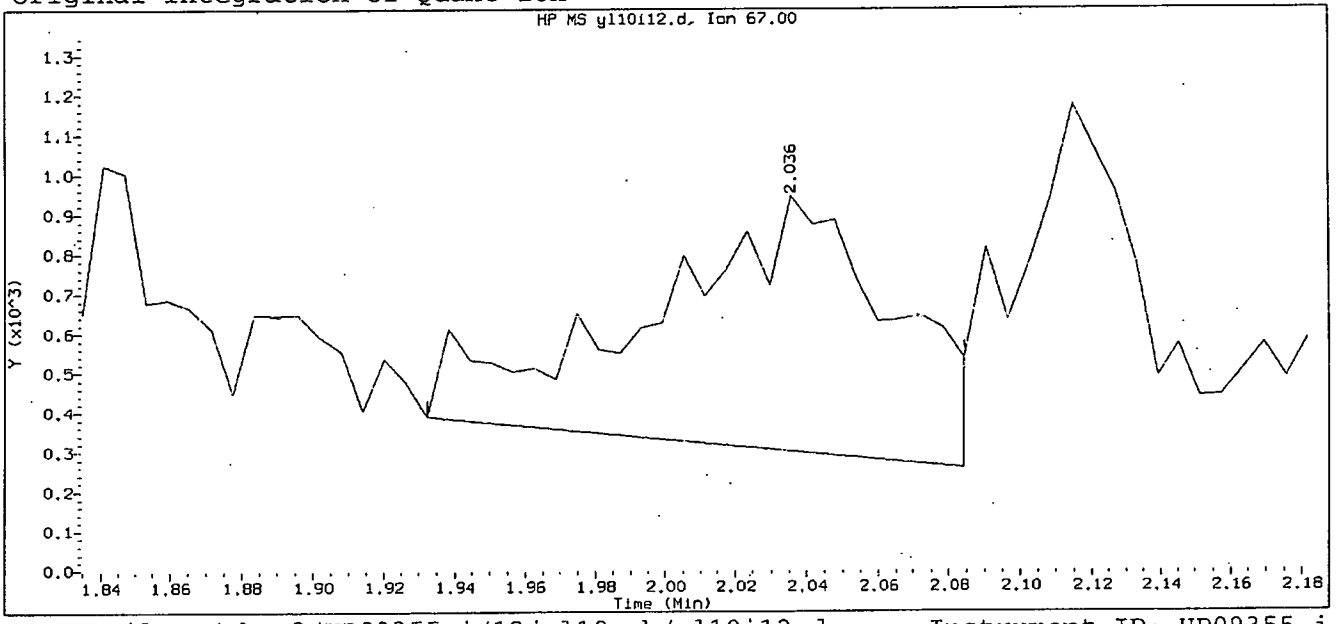
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39 Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number	: 14		
Compound Name	: Freon 123a		
Scan Number	: 198		
Retention Time (minutes)	: 2.036		
Quant Ion	: 67.00		
Area	: 3037		
On-column Amount (ng)	: 56.1091		
Integration start scan	: 180	Integration stop scan:	205
Y at integration start	: 387	Y at integration end:	256

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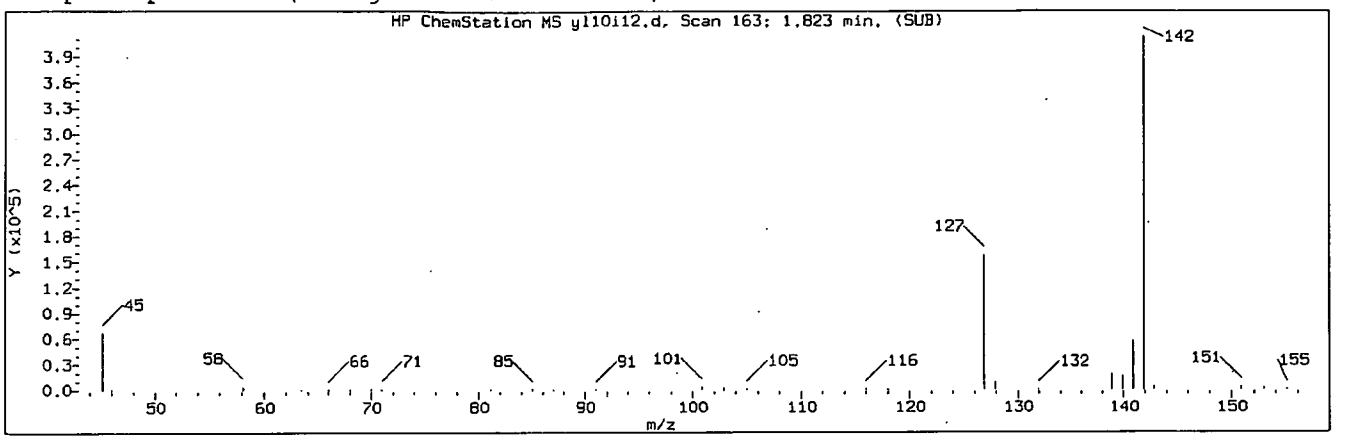
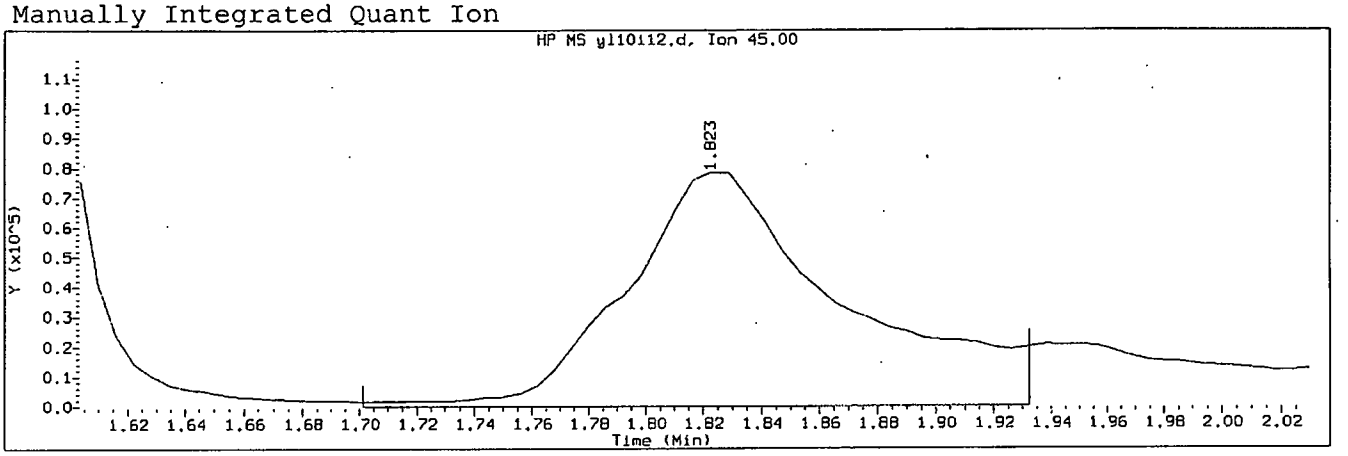
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 11-JUL-2012 18:07
Date, time and analyst ID of latest file update: 11-Jul-2012 18:07 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 163		
Retention Time (minutes)	: 1.823		
Quant Ion	: 45.00		
Area (flag)	: 409909M		
On-Column Amount (ng)	: 460.0879		
Integration start scan	: 142	Integration stop scan:	180
Y at integration start	: 0	Y at integration end:	0

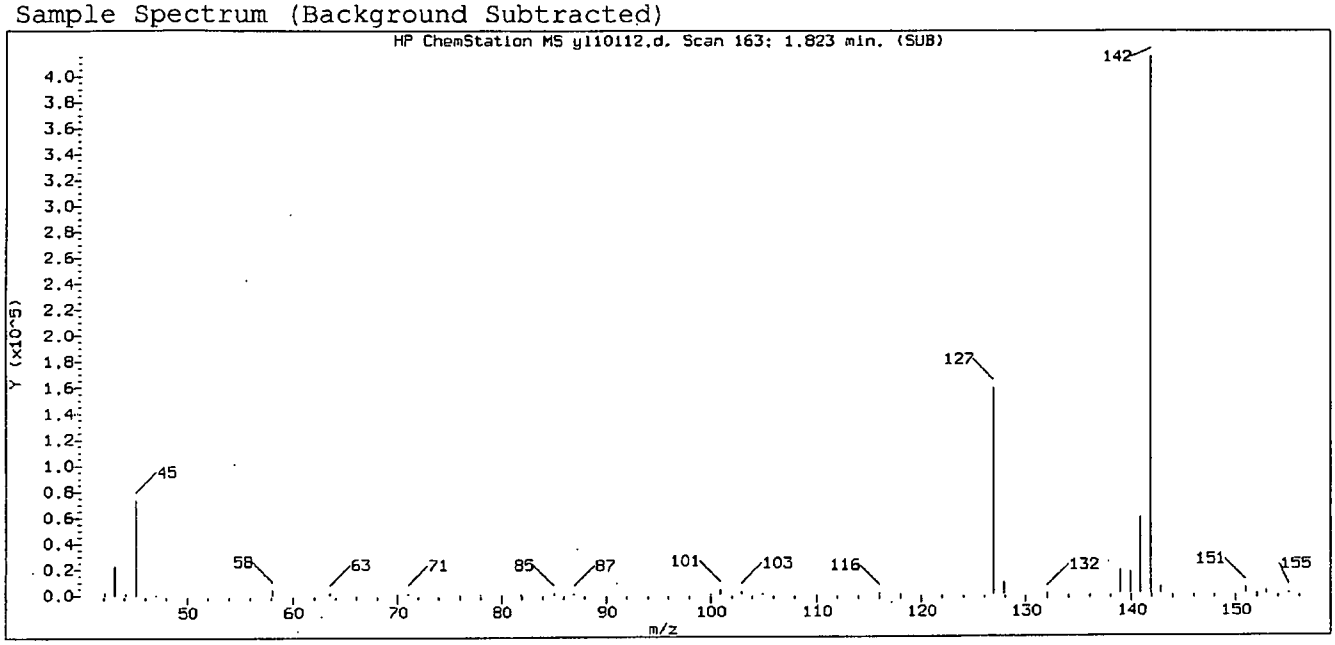
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Sara E. Johnson on 07/11/2012 at 18:08. Target 3.5 esignature user ID: sej02002

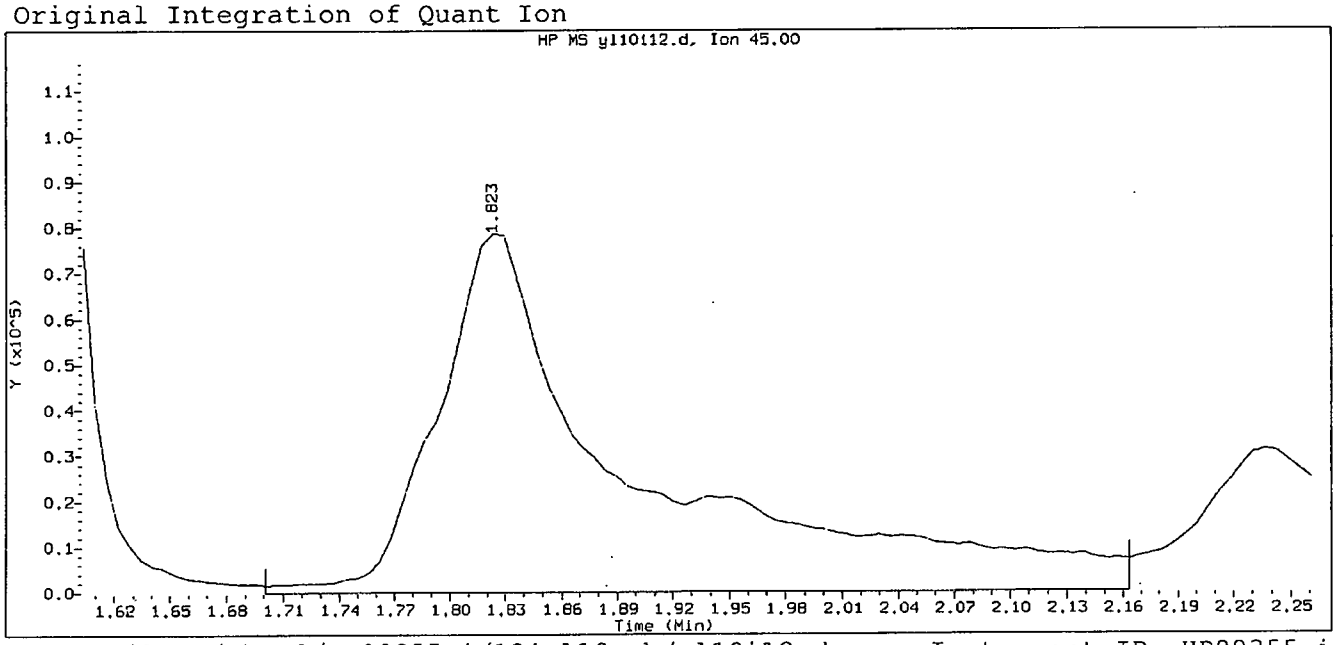
GC/MS audit/management approval: 7/11/12

3 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

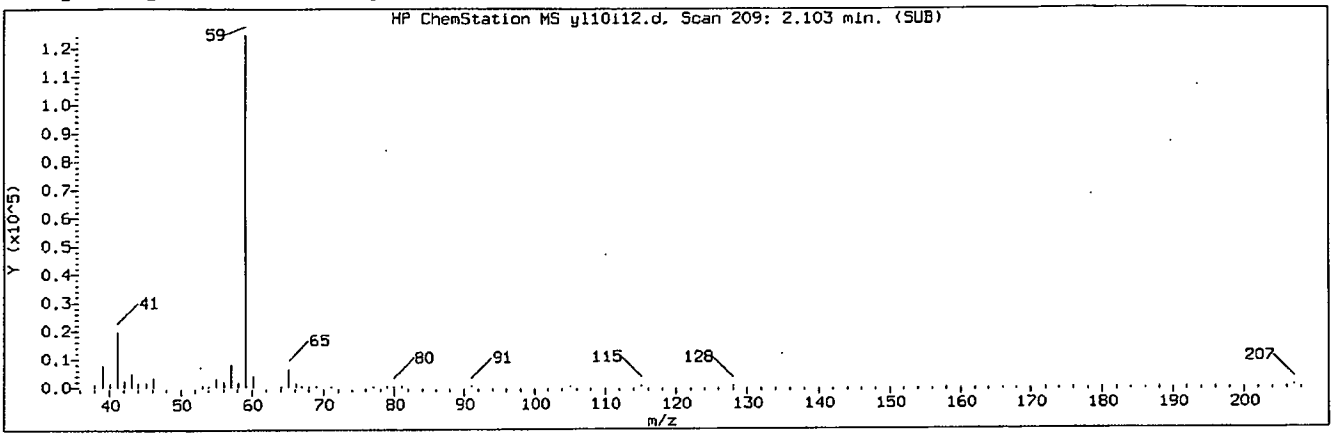
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

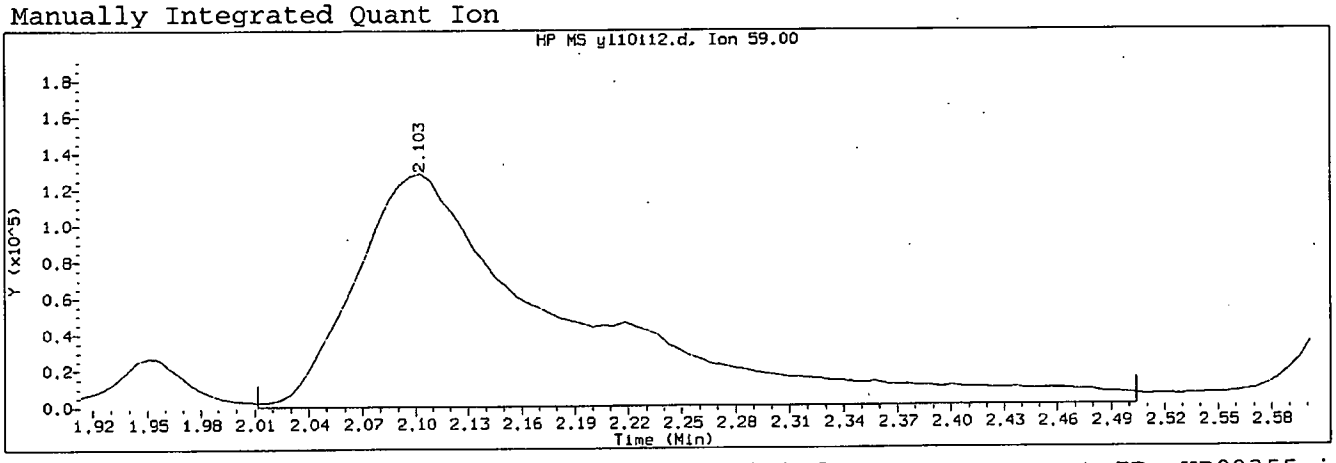
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 163		
Retention Time (minutes)	: 1.823		
Quant Ion	: 45.00		
Area	: 575971		
On-column Amount (ng)	: 517.1298		
Integration start scan	: 142	Integration stop scan:	218
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sara E. Johnson on 07/11/2012 at 18:08.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

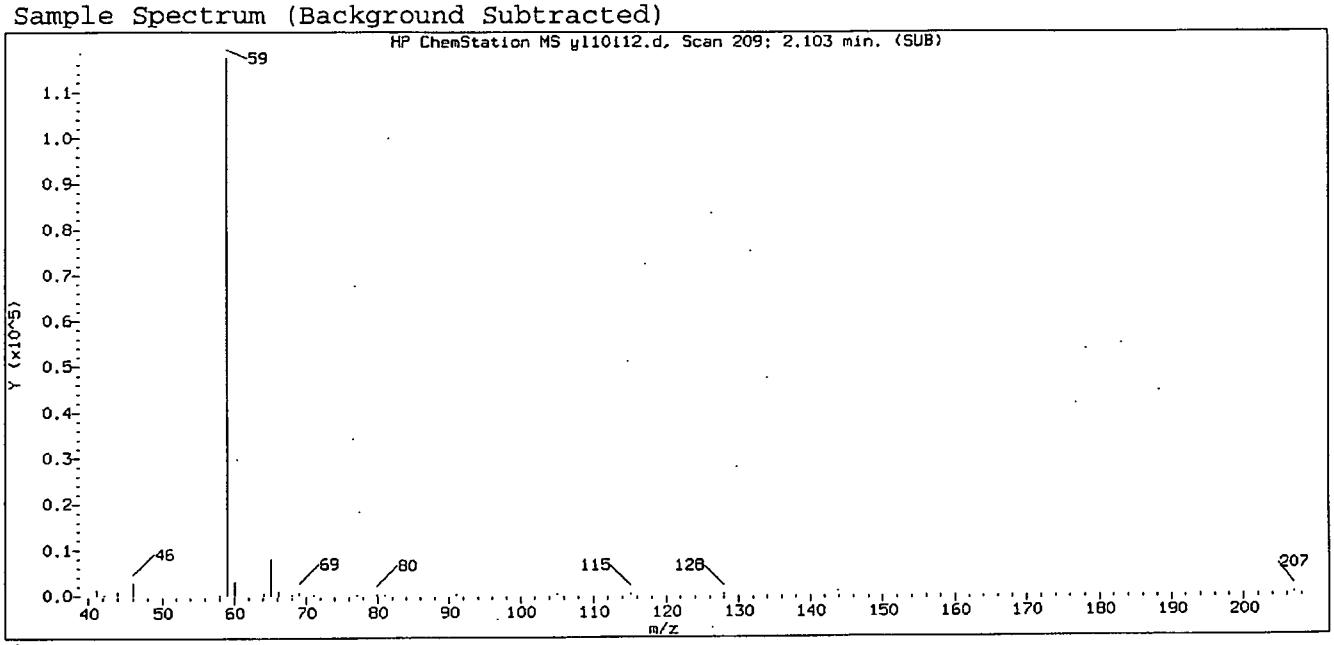
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 209		
Retention Time (minutes)	: 2.103		
Quant Ion	: 59.00		
Area (flag)	: 1080830M		
On-Column Amount (ng)	: 510.6554		
Integration start scan	: 193	Integration stop scan:	274
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

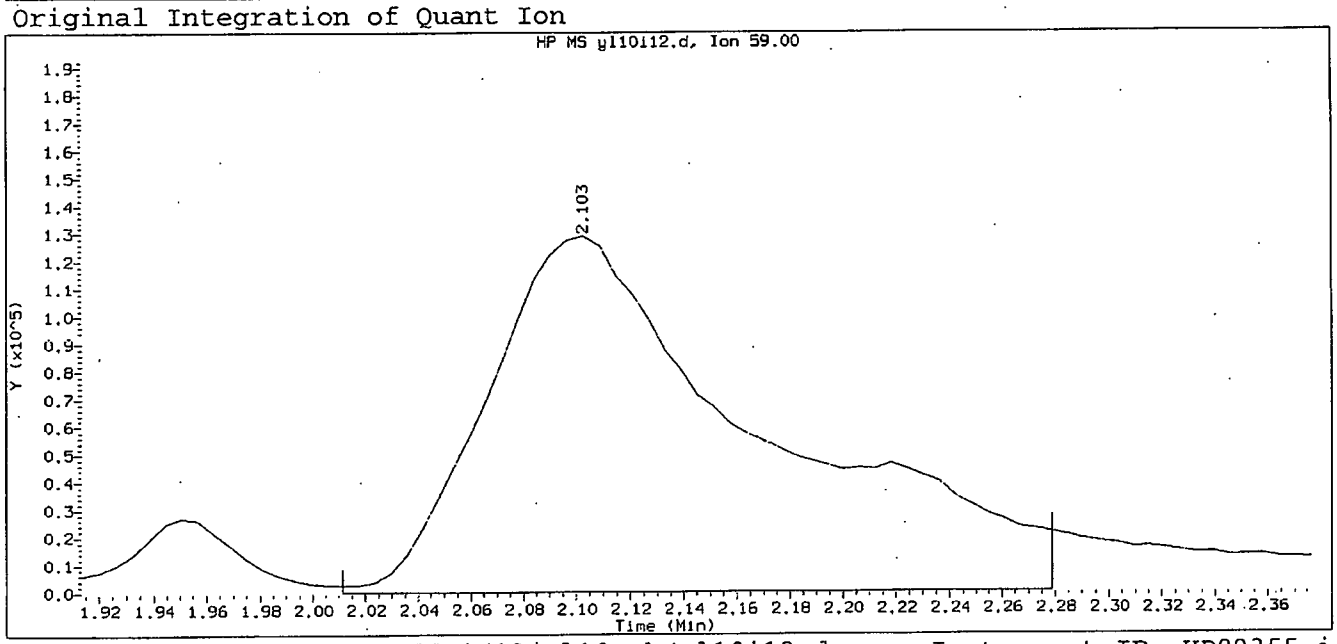
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39 Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

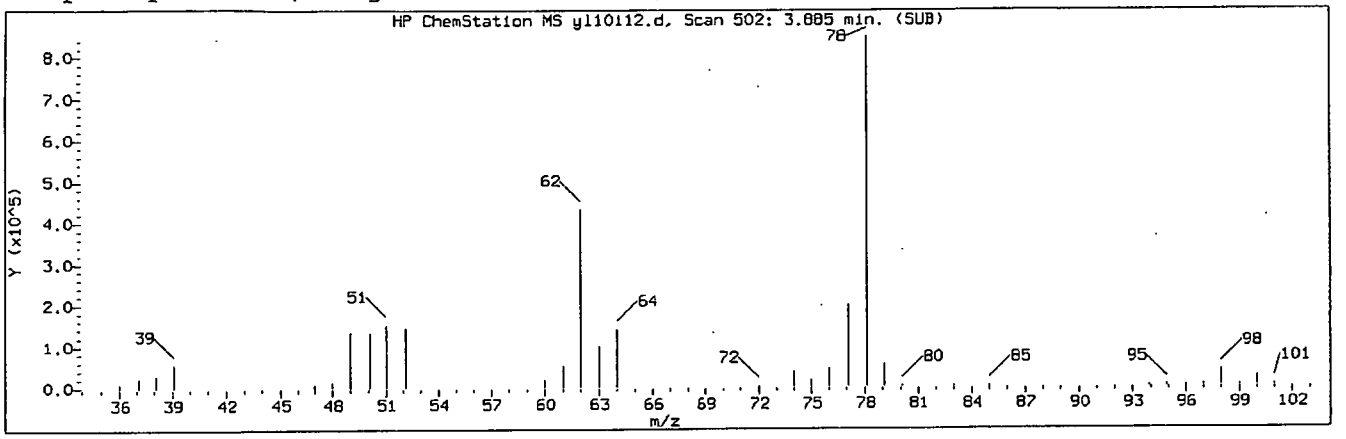
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

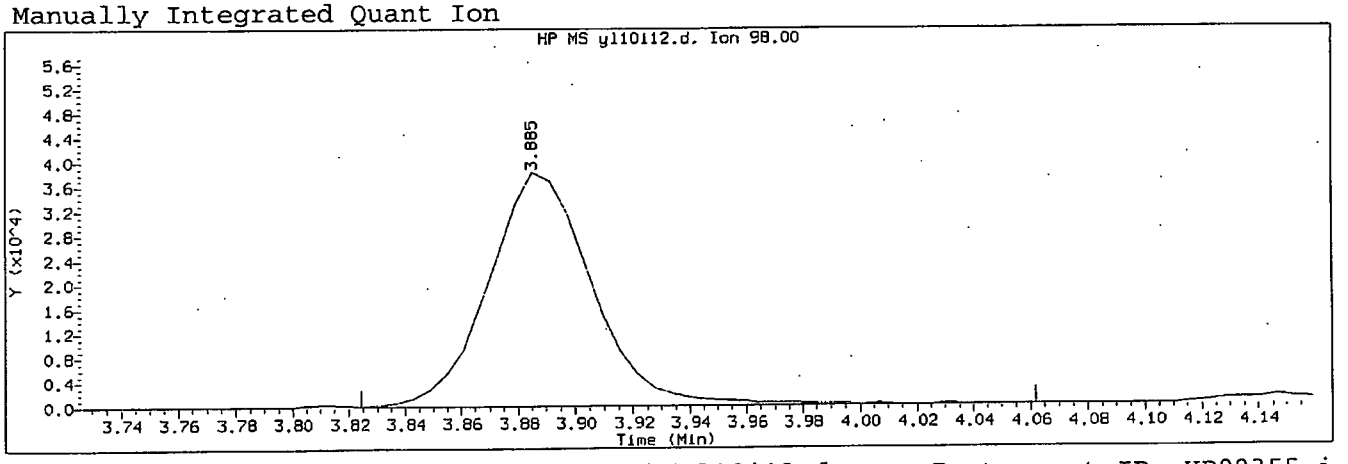
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 209		
Retention Time (minutes)	: 2.103		
Quant Ion	: 59.00		
Area	: 923017		
On-column Amount (ng)	: 514.4929		
Integration start scan	: 193	Integration stop scan:	237
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sheeringer on 07/10/2012 at 14:39.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

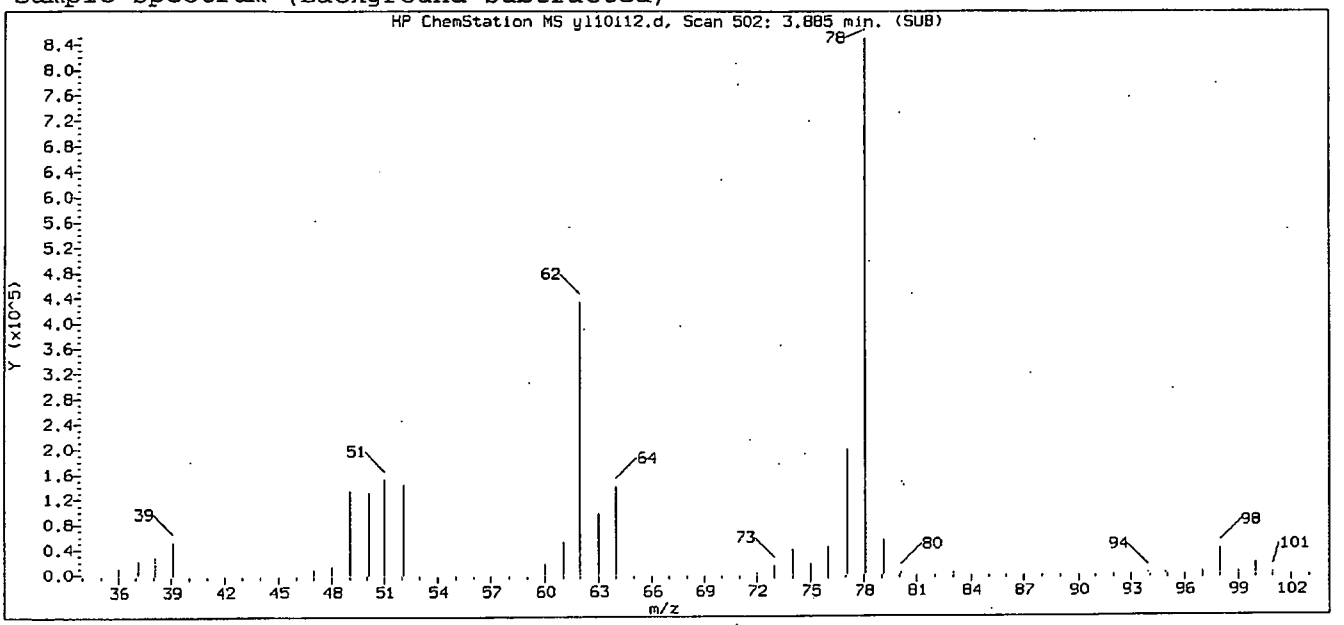
Compound Number	: 64		
Compound Name	: 1,2-Dichloroethane (mz 98)		
Scan Number	: 502		
Retention Time (minutes)	: 3.885		
Quant Ion	: 98.00		
Area (flag)	: 96920M		
On-Column Amount (ng)	: 101.8628		
Integration start scan	: 491	Integration stop scan:	530
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

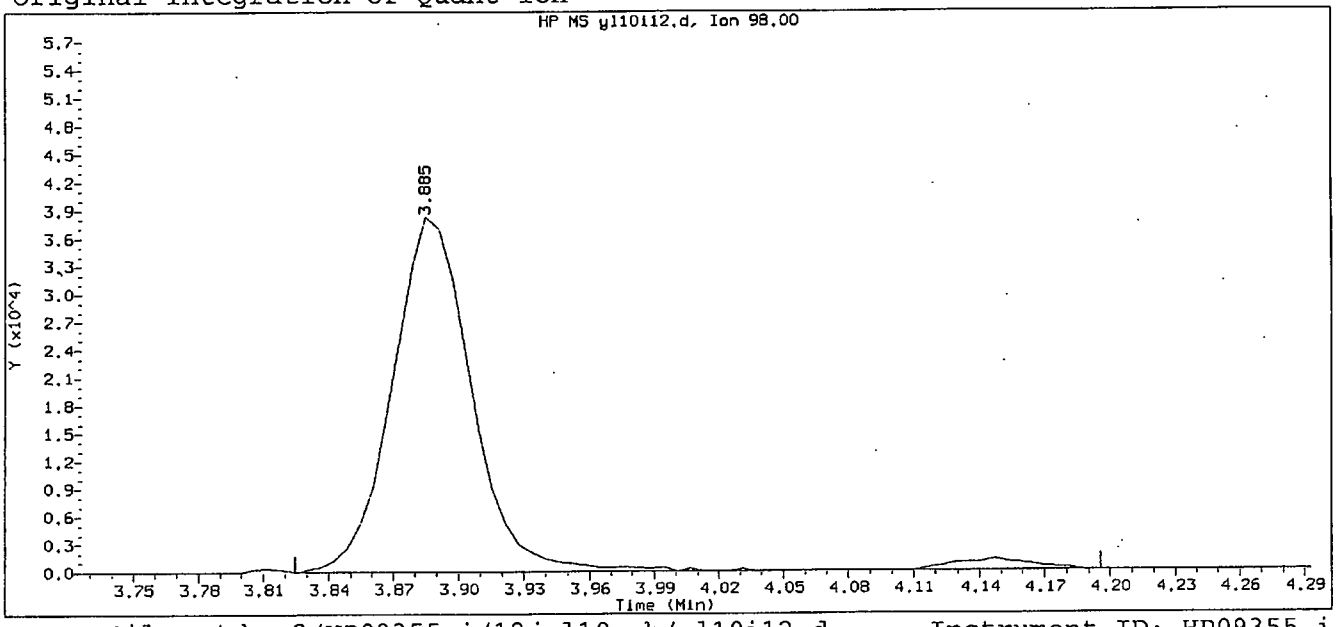
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:39
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



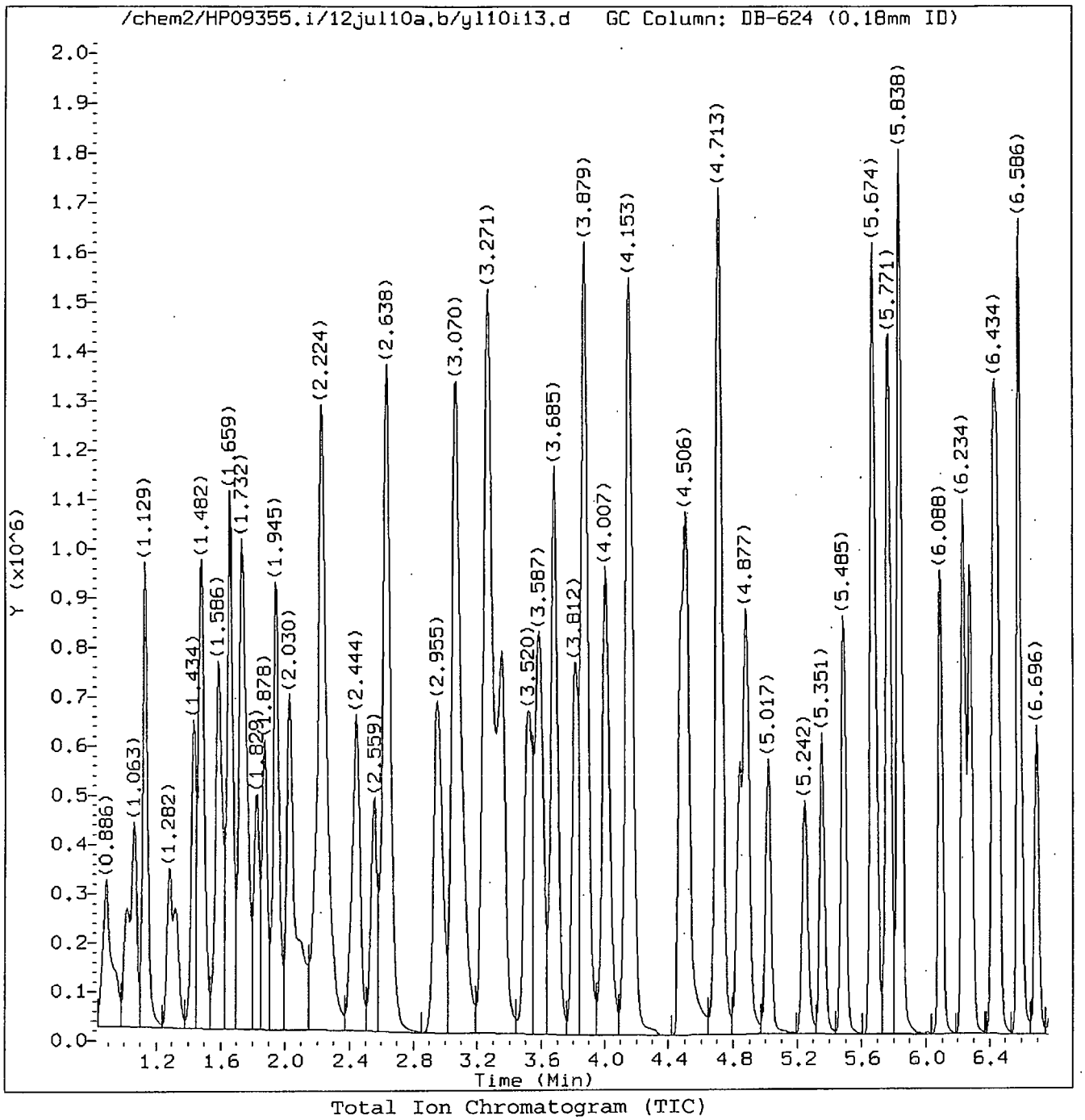
Data File: /chem2/HP09355.i/12jul10a.b/yl10i12.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:19 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number	: 64		
Compound Name	: 1,2-Dichloroethane (mz 98)		
Scan Number	: 502		
Retention Time (minutes)	: 3.885		
Quant Ion	: 98.00		
Area	: 99936		
On-column Amount (ng)	: 103.9349		
Integration start scan	: 491	Integration stop scan:	552
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:39.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

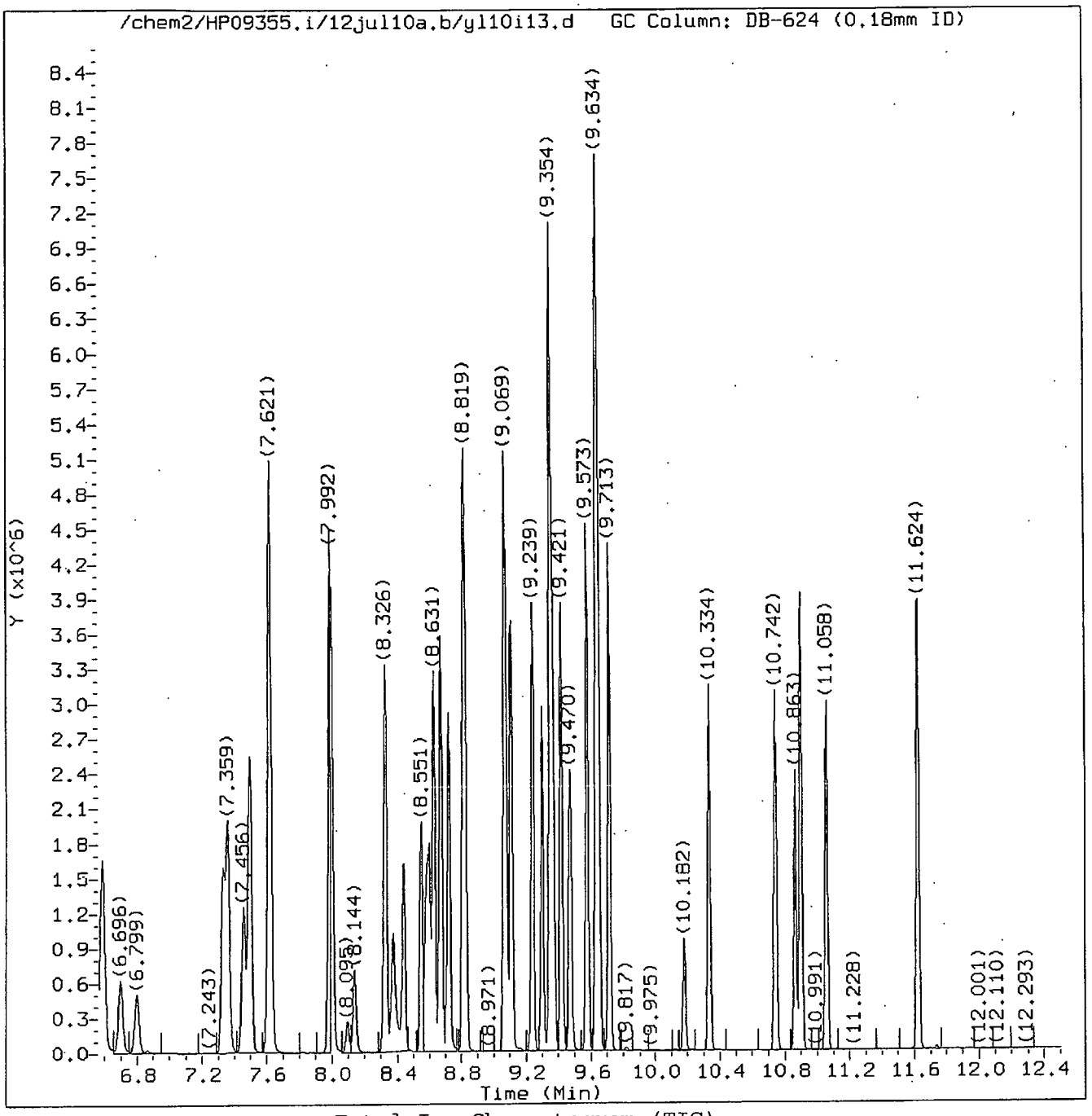
Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14.40
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d
Injection date and time: 10-JUL-2012 12:41

Instrument ID: HP09355.i
Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m
Calibration date and time: 10-JUL-2012 13:20

Sublist used: 8260WI

Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 11-JUL-2012 18:07
Date, time and analyst ID of latest file update: 11-Jul-2012 18:07 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.014	85	511220	52.080
3) Chloromethane	(1)	1.063	50	488153M	47.388
4) 1,3-Butadiene	(1)	1.129	39	339260	48.059
5) Vinyl Chloride	(1)	1.136	62	468902	48.369
7) Bromomethane	(1)	1.288	94	284468	47.894
8) Chloroethane	(1)	1.324	64	247887	49.160
9) Dichlorofluoromethane	(1)	1.434	67	598047	50.328
11) n-Pentane	(1)	1.476	43	579087	50.119
10) Trichlorofluoromethane	(1)	1.488	101	529036	51.220
13) Ethyl Ether	(1)	1.586	59	309401	50.878
14) Freon 123a	(1)	1.604	67	340700MA	47.560
15) Acrolein	(4)	1.659	56	1338770	520.820
16) 1,1-Dichloroethene	(1)	1.732	96	275172	50.267
17) Acetone	(1)	1.750	58	137319	96.806
18) Freon 113	(1)	1.756	101	305204	51.176
21) 2-Propanol	(4)	1.823	45	248279M	263.793
20) Methyl Iodide	(1)	1.829	142	536991	51.566
22) Carbon Disulfide	(1)	1.878	76	887394	51.477
24) Allyl Chloride	(1)	1.945	41	519686	50.134
25) Methyl Acetate	(1)	1.951	43	481686	47.867
26) Methylene Chloride	(1)	2.030	84	328479	48.875
28)*t-Butyl Alcohol-d10	(4)	2.042	65	375285	250.000
29) t-Butyl Alcohol	(4)	2.109	59	542365M	256.334
30) Acrylonitrile	(1)	2.188	53	279183M	50.584
31) trans-1,2-Dichloroethene	(1)	2.224	96	337689	51.269
32) Methyl Tertiary Butyl Ether	(1)	2.237	73	1196522	50.251
33) n-Hexane	(1)	2.444	57	558443	48.357
34) 1,1-Dichloroethane	(1)	2.559	63	667967	51.490
36) di-Isopropyl Ether	(1)	2.632	45	1261394	49.441
37) 2-Chloro-1,3-Butadiene	(1)	2.638	53	588196	50.441
39) Ethyl t-Butyl Ether	(1)	2.955	59	1217669	50.430
40) cis-1,2-Dichloroethene	(1)	3.064	96	379054	51.157
41) 2-Butanone	(1)	3.070	43	840340	103.089
42) 2,2-Dichloropropane	(1)	3.076	77	528261	52.101
43) Propionitrile	(4)	3.119	54	571757	249.670
46) Methacrylonitrile	(1)	3.259	67	658662	124.949
47) Bromochloromethane	(1)	3.277	128	193999	50.568
48) Tetrahydrofuran	(4)	3.320	71	222148	104.855

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 07/11/2012 at 18:08.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Chloroform	(1)	3.356	83	624456	50.808
52)$Dibromofluoromethane	(1)	3.502	113	284043	50.058
51)$Dibromofluoromethane(mz111)	(1)	3.502	111	289659	49.979
53) 1,1,1-Trichloroethane	(1)	3.532	97	569068	50.624
55) Cyclohexane (mz 69)	(1)	3.587	69	199469	50.552
56) Cyclohexane	(1)	3.587	56	661473	50.630
54) Cyclohexane (mz 84)	(1)	3.593	84	540254	50.638
45) 1,2-Dichloroethene (total)	(1)		96	716743	102.511
57) 1,1-Dichloropropene	(1)	3.678	75	506767	50.487
58) Carbon Tetrachloride	(1)	3.691	117	452072	49.838
60)$1,2-Dichloroethane-d4(mz104)	(1)	3.812	104	46814	49.836
61)$1,2-Dichloroethane-d4(mz65)	(1)	3.812	65	371228	50.387
59) Isobutyl Alcohol	(4)	3.812	41	394157	610.864
62)$1,2-Dichloroethane-d4	(1)	3.812	102	72623	49.796
63) Benzene	(1)	3.873	78	1470700	51.188
65) 1,2-Dichloroethane	(1)	3.885	62	541365	50.516
64) 1,2-Dichloroethane (mz 98)	(1)	3.891	98	47142	50.027
69) t-Amyl Methyl Ether	(1)	4.007	73	1131121	50.143
71)*Fluorobenzene	(1)	4.147	96	1221798	50.000
72) n-Heptane	(1)	4.165	43	638458	49.093
73) n-Butanol	(4)	4.475	56	731098	1235.985
74) Trichloroethene	(1)	4.512	95	373651	50.732
75) Methylcyclohexane (mz98)	(1)	4.707	98	296106	50.177
76) Methylcyclohexane	(1)	4.707	83	658147	50.085
77) 1,2-Dichloropropane	(1)	4.725	63	403119	50.950
78) Dibromomethane	(1)	4.840	93	252720	50.398
79) 1,4-Dioxane	(4)	4.865	88	96696	622.784
80) Methyl Methacrylate	(1)	4.883	69	418505	50.058
83) Bromodichloromethane	(1)	5.017	83	460803	49.488
85) 2-Nitropropane	(1)	5.242	41	409138	99.543
86) 2-Chloroethyl Vinyl Ether	(1)	5.351	63	333254	51.080
87) cis-1,3-Dichloropropene	(1)	5.485	75	607188	50.077
89) 4-Methyl-2-Pentanone	(1)	5.674	43	1602211	103.508
93)$Toluene-d8	(2)	5.771	98	1214659	50.041
92)$Toluene-d8(mz100)	(2)	5.771	100	801726	48.068
94) Toluene	(2)	5.838	92	939328	50.775
95) trans-1,3-Dichloropropene	(2)	6.088	75	599877	49.490
96) Ethyl Methacrylate	(2)	6.234	69	655351	49.466

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,1,2-Trichloroethane	(2)	6.276	97	355430	50.202
98) Tetrachloroethene	(2)	6.428	166	432814	50.405
99) 1,3-Dichloropropane	(2)	6.453	76	640951	50.380
101) 2-Hexanone	(2)	6.586	43	1302682	103.153
102) Dibromochloromethane	(2)	6.696	129	368929	48.546
104) 1,2-Dibromoethane	(2)	6.799	107	394974	50.051
106)*Chlorobenzene-d5	(2)	7.329	117	888114	50.000
107) Chlorobenzene	(2)	7.359	112	1062398	50.858
108) 1,1,1,2-Tetrachloroethane	(2)	7.456	131	361168	49.835
109) Ethylbenzene	(2)	7.499	91	1835238	51.301
110) m+p-Xylene	(2)	7.621	106	1427409	102.777
113) o-Xylene	(2)	7.986	106	704243	51.127
114) Styrene	(2)	7.998	104	1206100	51.186
115) Bromoform	(2)	8.144	173	296257	47.243
112) Xylene (Total)	(2)		106	2131652	153.904
116) Isopropylbenzene	(2)	8.326	105	1852158	52.247
118) Cyclohexanone	(4)	8.375	55	491068	624.838
120)$4-Bromofluorobenzene(mz174)	(2)	8.442	174	390658	49.814
119)$4-Bromofluorobenzene	(2)	8.442	95	448155	49.805
121) Bromobenzene	(3)	8.551	156	477627	50.290
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	608610	50.128
123) 1,2,3-Trichloropropane	(3)	8.600	110	193483	49.905
124) trans-1,4-Dichloro-2-Butene	(3)	8.631	53	540788	124.464
125) n-Propylbenzene	(3)	8.673	91	2159321	52.827
126) 2-Chlorotoluene	(3)	8.722	126	441139	50.246
128) 4-Chlorotoluene	(3)	8.813	126	463341	50.719
127) 1,3,5-Trimethylbenzene	(3)	8.825	105	1590965	51.798
130) tert-Butylbenzene	(3)	9.075	134	357175	50.525
131) Pentachloroethane	(3)	9.075	167	290577	49.047
132) 1,2,4-Trimethylbenzene	(3)	9.111	105	1632053	51.715
133) sec-Butylbenzene	(3)	9.239	105	1974299	52.532
134) 1,3-Dichlorobenzene	(3)	9.300	146	914408	50.710
135) p-Isopropyltoluene	(3)	9.354	119	1775401	52.246
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	523859	50.000
138) 1,4-Dichlorobenzene	(3)	9.367	146	939866	50.957
139) 1,2,3-Trimethylbenzene	(3)	9.421	105	1666835	52.002
141) Benzyl Chloride	(3)	9.470	91	1315289	49.669
142) 1,3-Diethylbenzene	(3)	9.573	119	1064455	51.518

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dichlorobenzene	(3)	9.634	146	875075	51.263
143) 1,4-Diethylbenzene	(3)	9.634	119	1098893	51.737
145) n-Butylbenzene	(3)	9.653	92	853806	51.075
146) 1,2-Diethylbenzene	(3)	9.713	119	888565	51.392
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	171327	49.221
149) 1,3,5-Trichlorobenzene	(3)	10.334	180	718076	50.885
150) 1,2,4-Trichlorobenzene	(3)	10.742	180	676130	51.446
151) Hexachlorobutadiene	(3)	10.863	225	332623	50.538
152) Naphthalene	(3)	10.900	128	2231200	49.776
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	658110	51.517
154) 2-Methylnaphthalene	(3)	11.624	142	1351068	53.038

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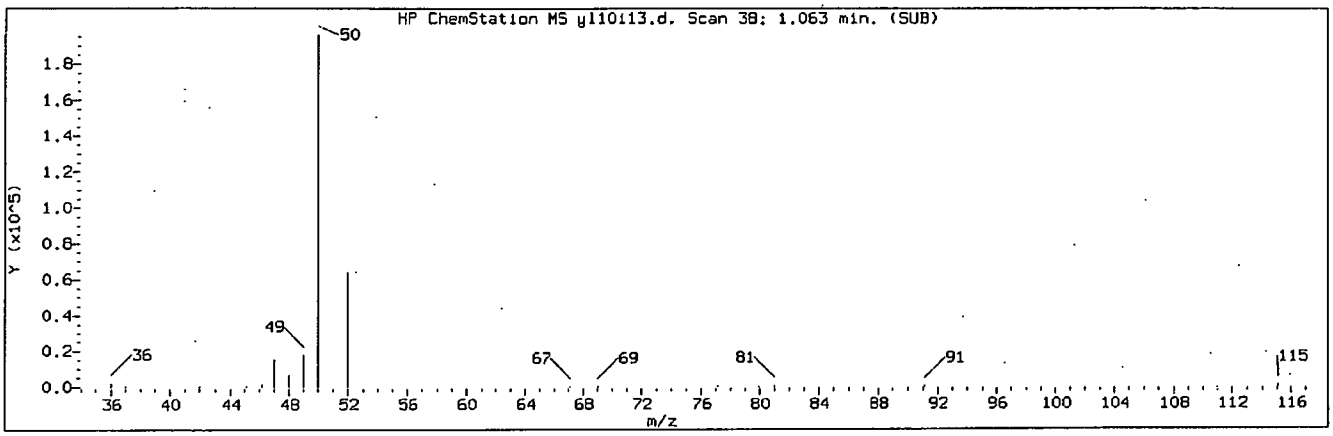
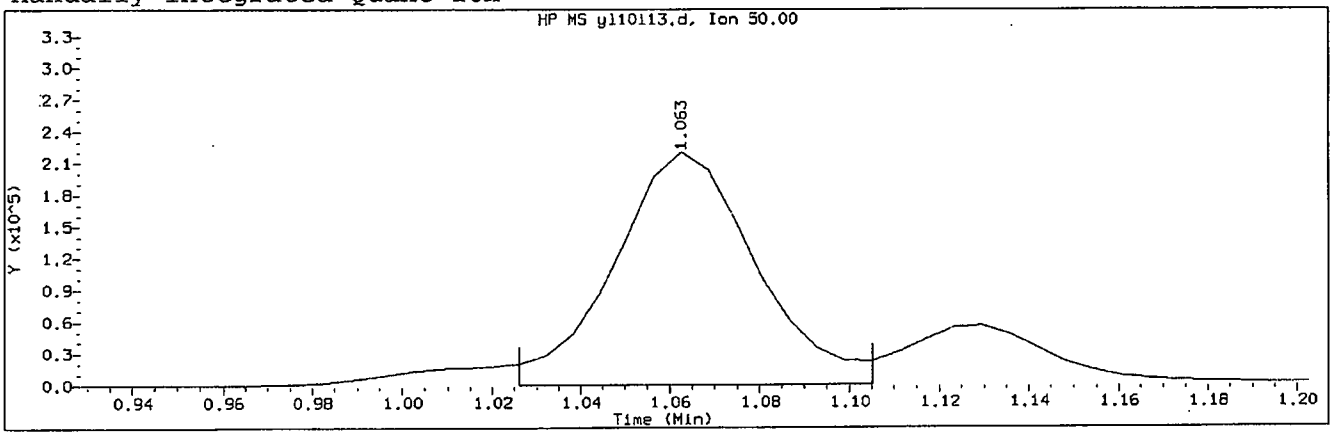
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

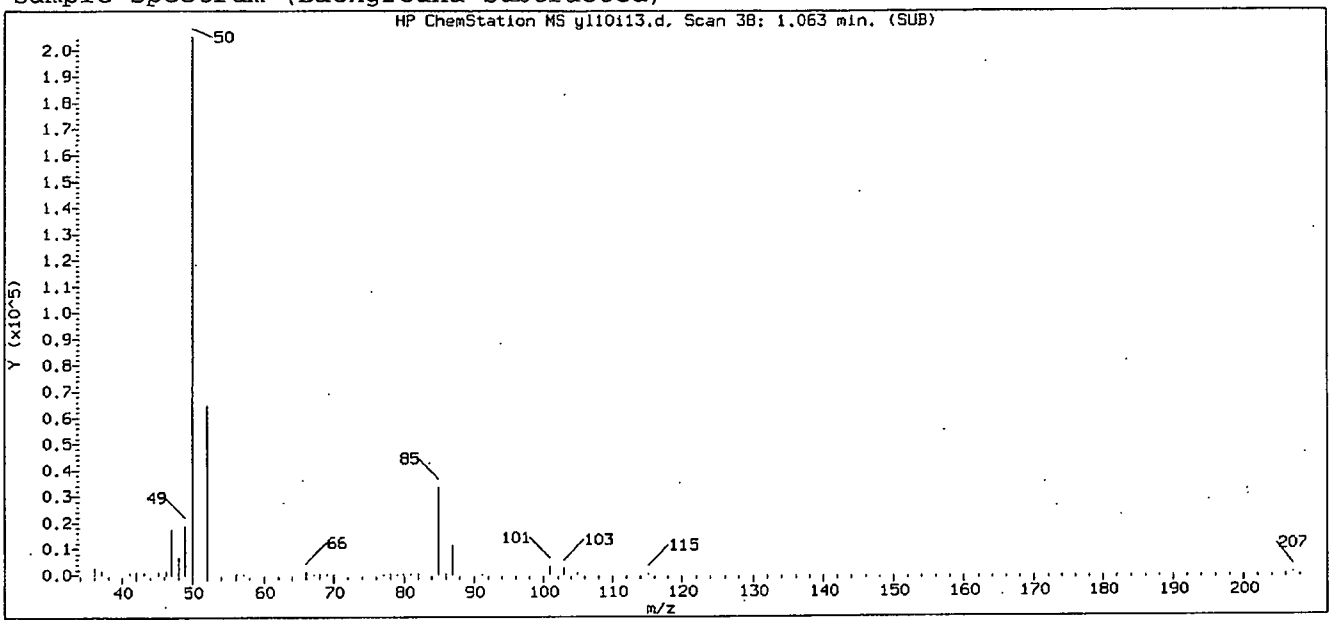
Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 38		
Retention Time (minutes)	: 1.063		
Quant Ion	: 50.00		
Area (flag)	: 488153M		
On-Column Amount (ng)	: 51.8938		
Integration start scan	: 31	Integration stop scan:	44
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

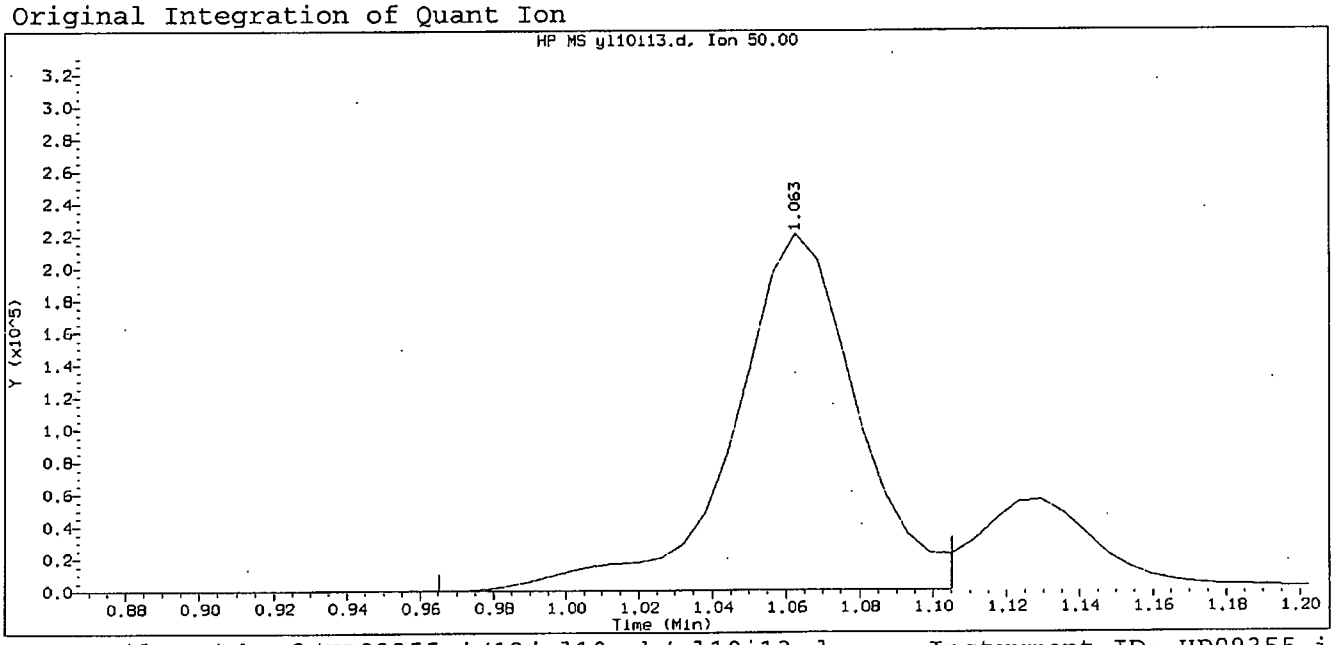
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 38		
Retention Time (minutes)	: 1.063		
Quant Ion	: 50.00		
Area	: 513394		
On-column Amount (ng)	: 51.9517		
Integration start scan	: 21	Integration stop scan:	44
Y at integration start	: 0	Y at integration end:	0

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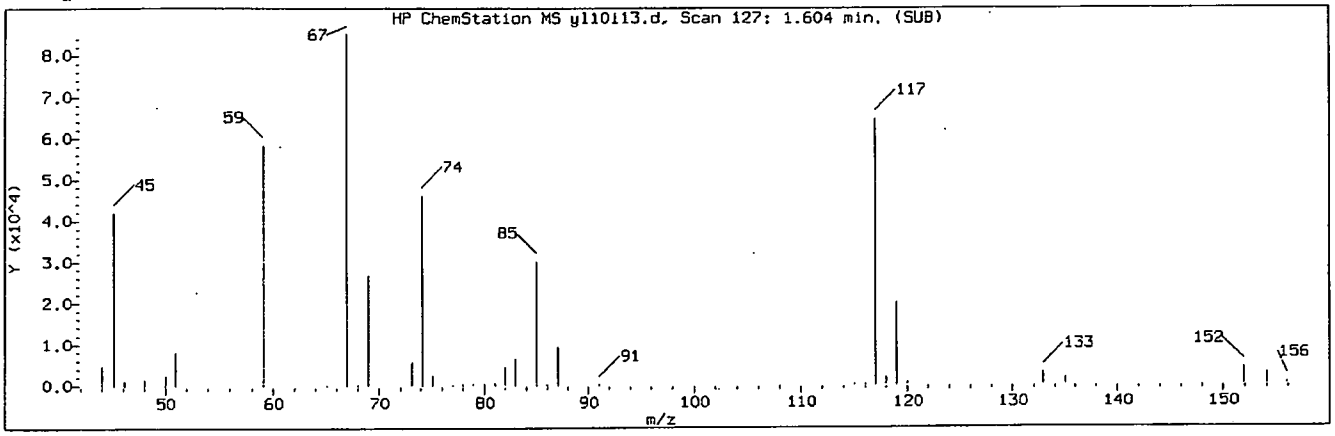
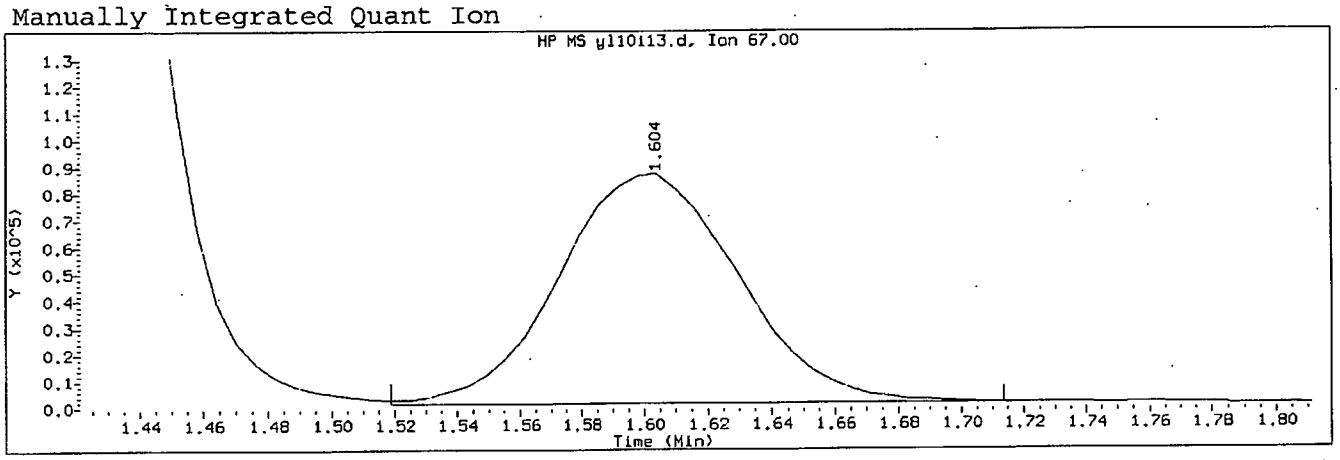
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

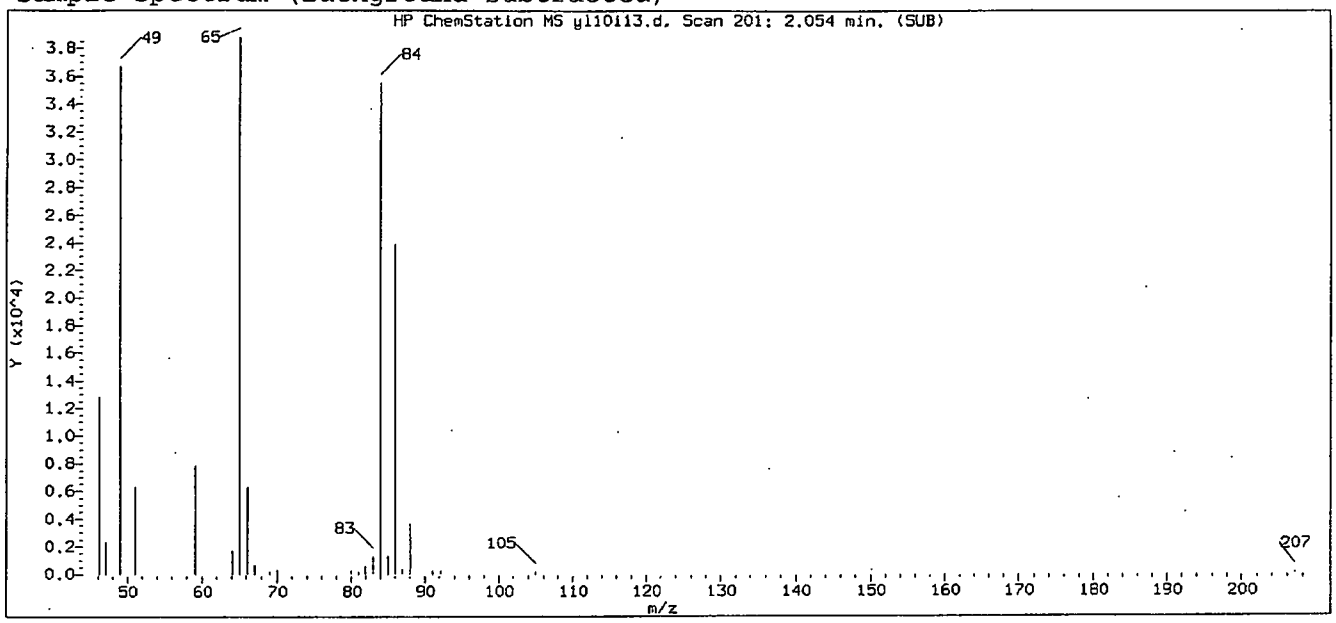
Compound Number	: 14		
Compound Name	: Freon 123a		
Scan Number	: 127		
Retention Time (minutes)	: 1.604		
Quant Ion	: 67.00		
Area (flag)	: 340700MA		
On-Column Amount (ng)	: 51.4293		
Integration start scan	: 112	Integration stop scan:	144
Y at integration start	: 1511	Y at integration end:	1511

Reason for manual integration: improper integration

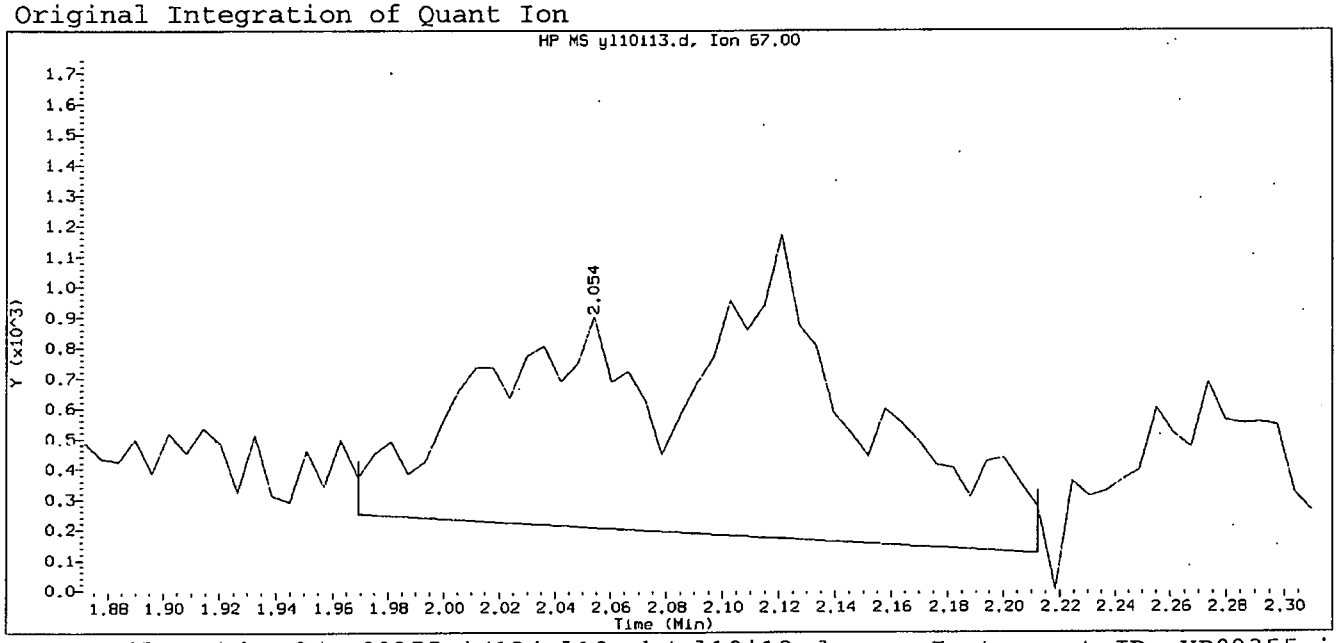
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 14		
Compound Name	: Freon 123a		
Scan Number	: 201		
Retention Time (minutes)	: 2.054		
Quant Ion	: 67.00		
Area	: 6352		
On-column Amount (ng)	: 118.6397		
Integration start scan	: 186	Integration stop scan:	226
Y at integration start	: 252	Y at integration end:	120

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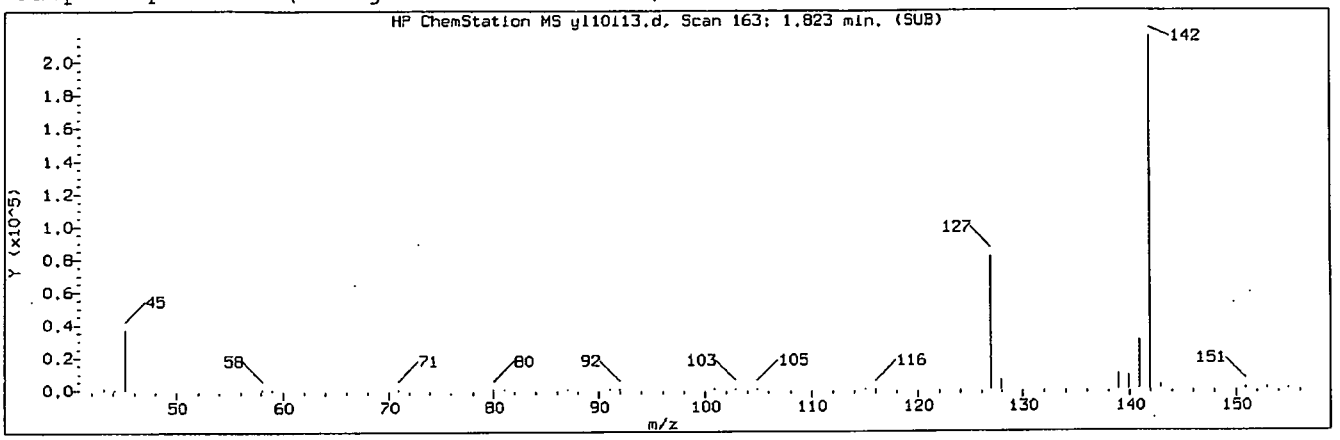
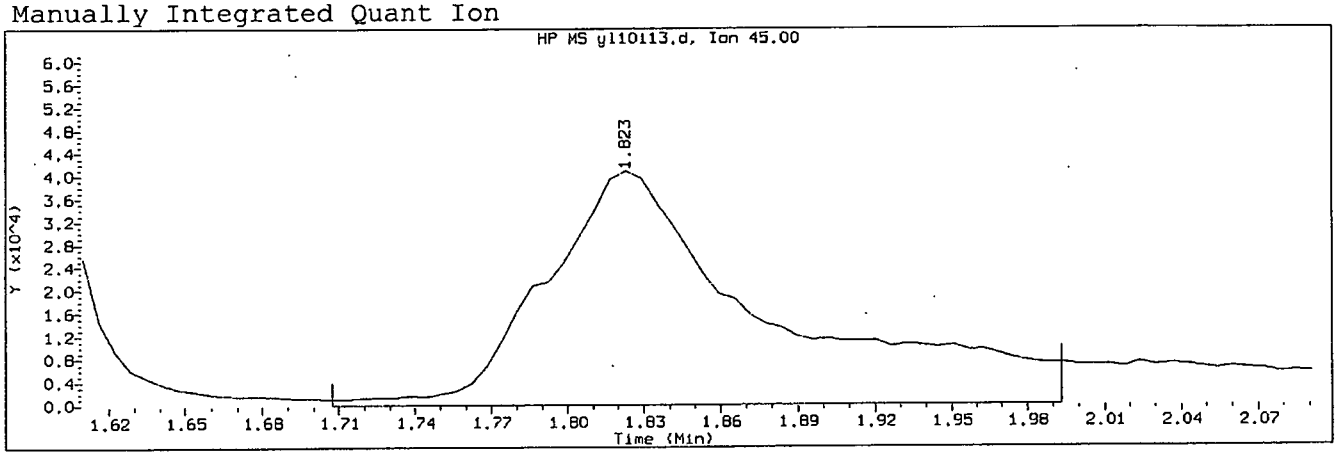
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 11-JUL-2012 18:07
Date, time and analyst ID of latest file update: 11-Jul-2012 18:07 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

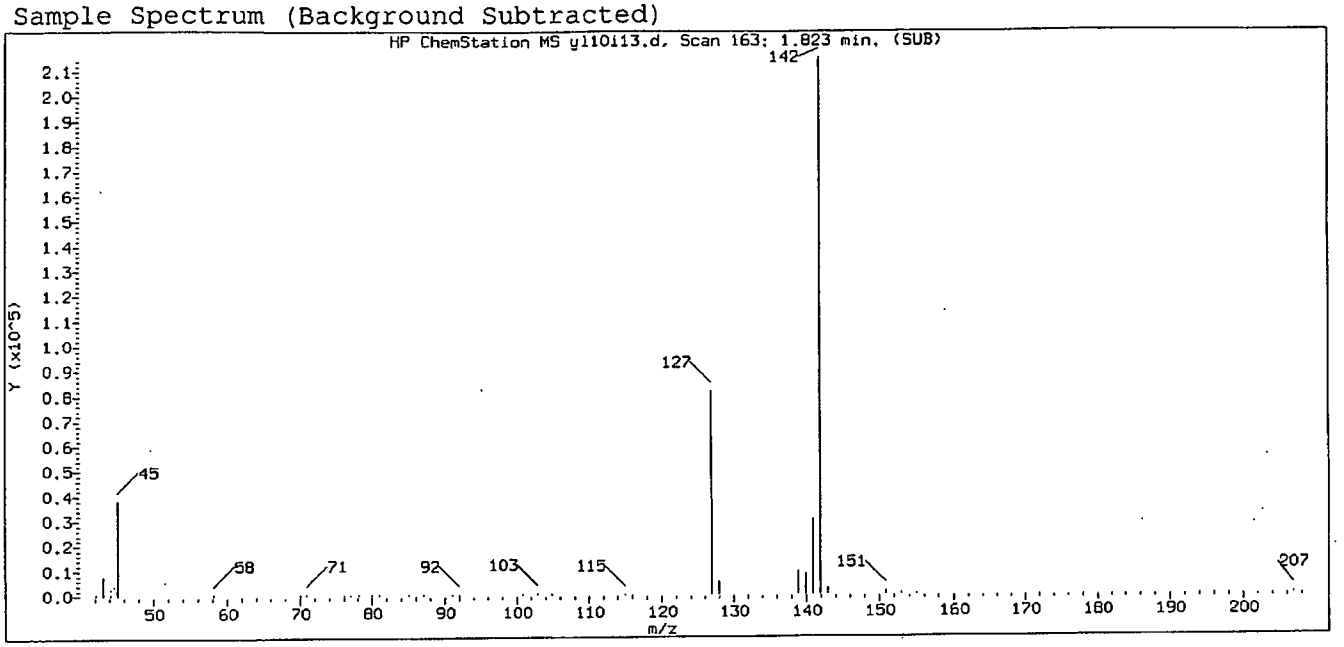
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 163		
Retention Time (minutes)	: 1.823		
Quant Ion	: 45.00		
Area (flag)	: 248279M		
On-Column Amount (ng)	: 263.7933		
Integration start scan	: 143	Integration stop scan:	190
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

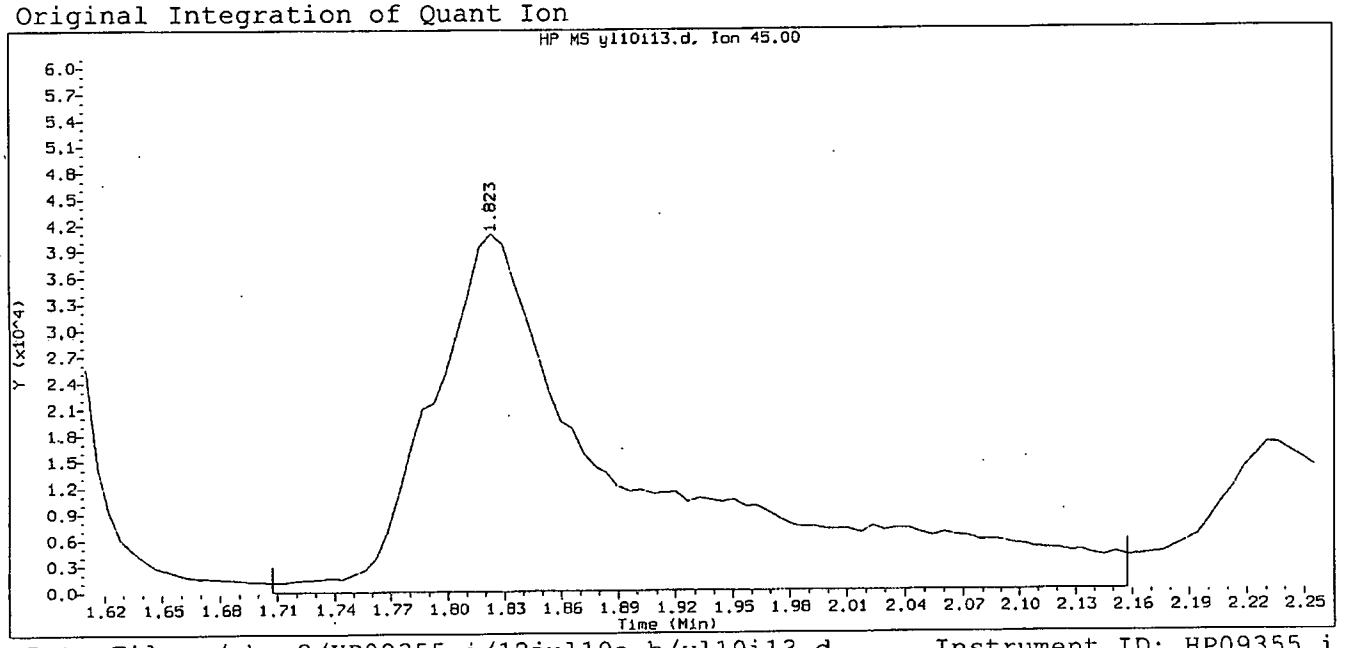
Analyst responsible for change: Digitally signed by Sara E. Johnson on 07/11/2012 at 18:08. Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

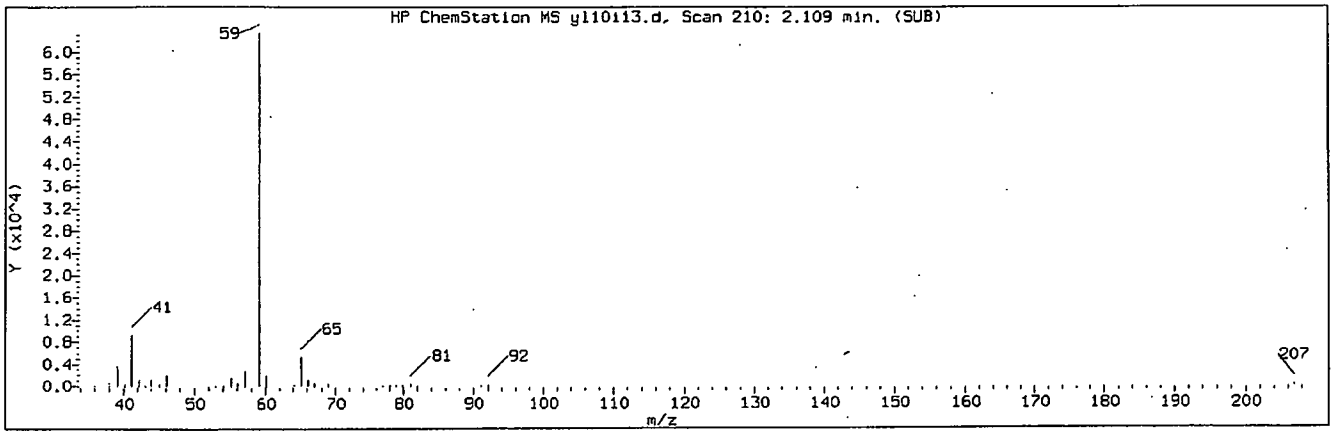
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

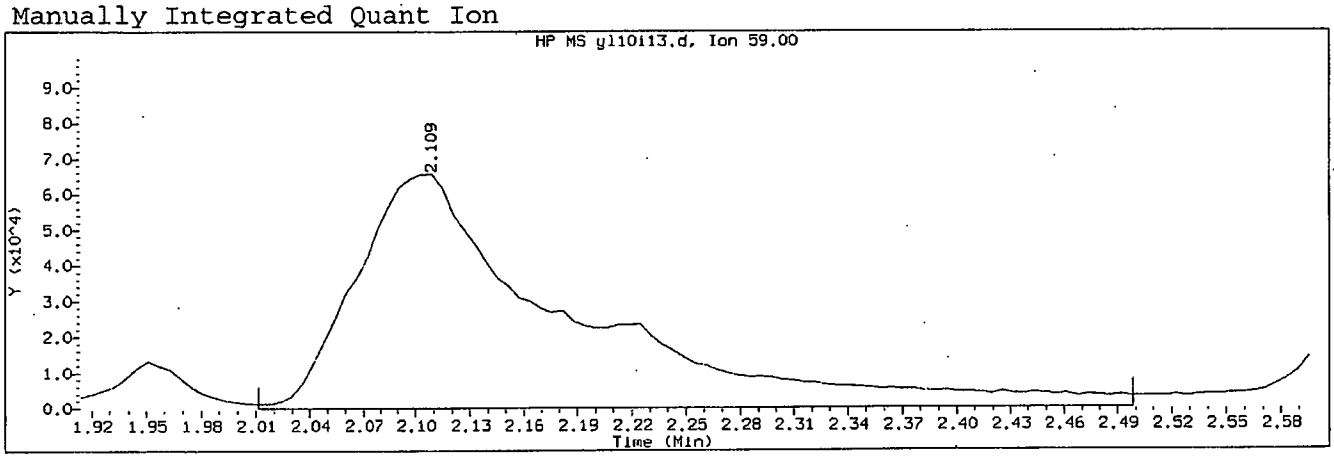
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 163		
Retention Time (minutes)	: 1.823		
Quant Ion	: 45.00		
Area	: 303309		
On-column Amount (ng)	: 257.7833		
Integration start scan	: 143	Integration stop scan:	217
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sara E. Johnson on 07/11/2012 at 18:08.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

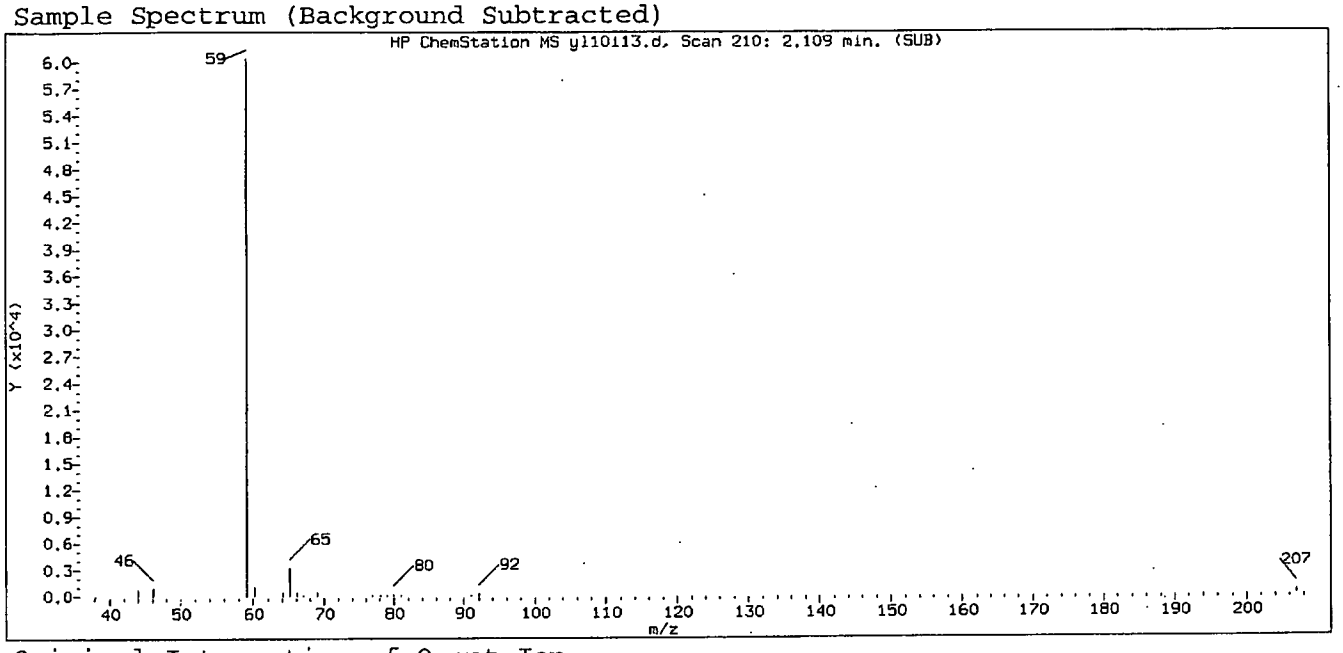
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 210		
Retention Time (minutes)	: 2.109		
Quant Ion	: 59.00		
Area (flag)	: 542365M		
On-Column Amount (ng)	: 242.5675		
Integration start scan	: 193	Integration stop scan:	273
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

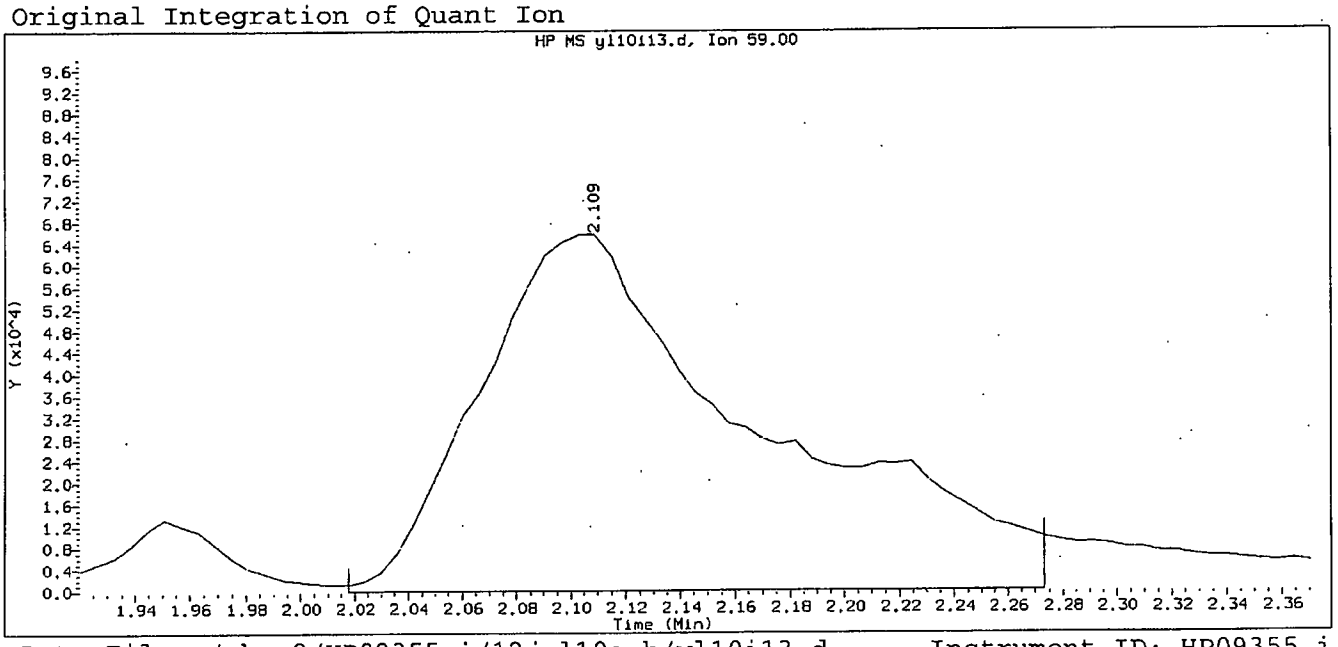
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 210		
Retention Time (minutes)	: 2.109		
Quant Ion	: 59.00		
Area	: 468612		
On-column Amount (ng)	: 247.2600		
Integration start scan	: 194	Integration stop scan:	236
Y at integration start	: 0	Y at integration end:	0

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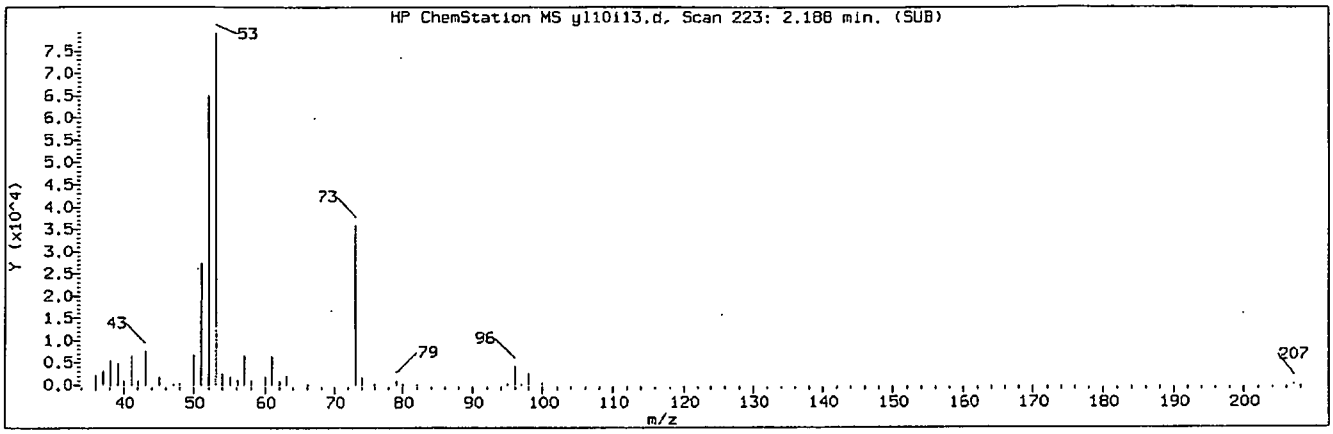
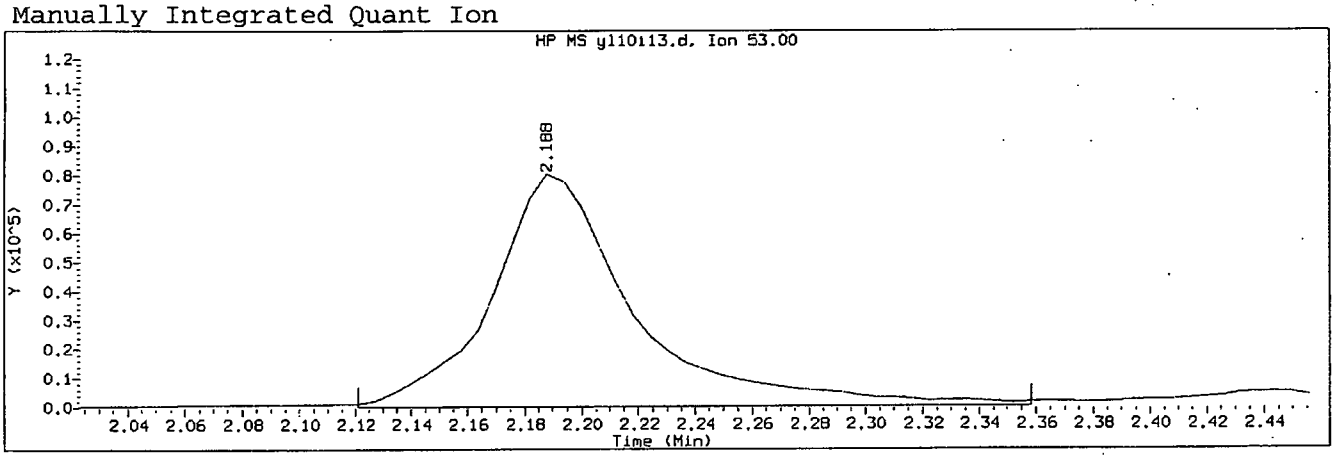
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:20
Date, time and analyst ID of latest file update: 10-Jul-2012 13:20 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

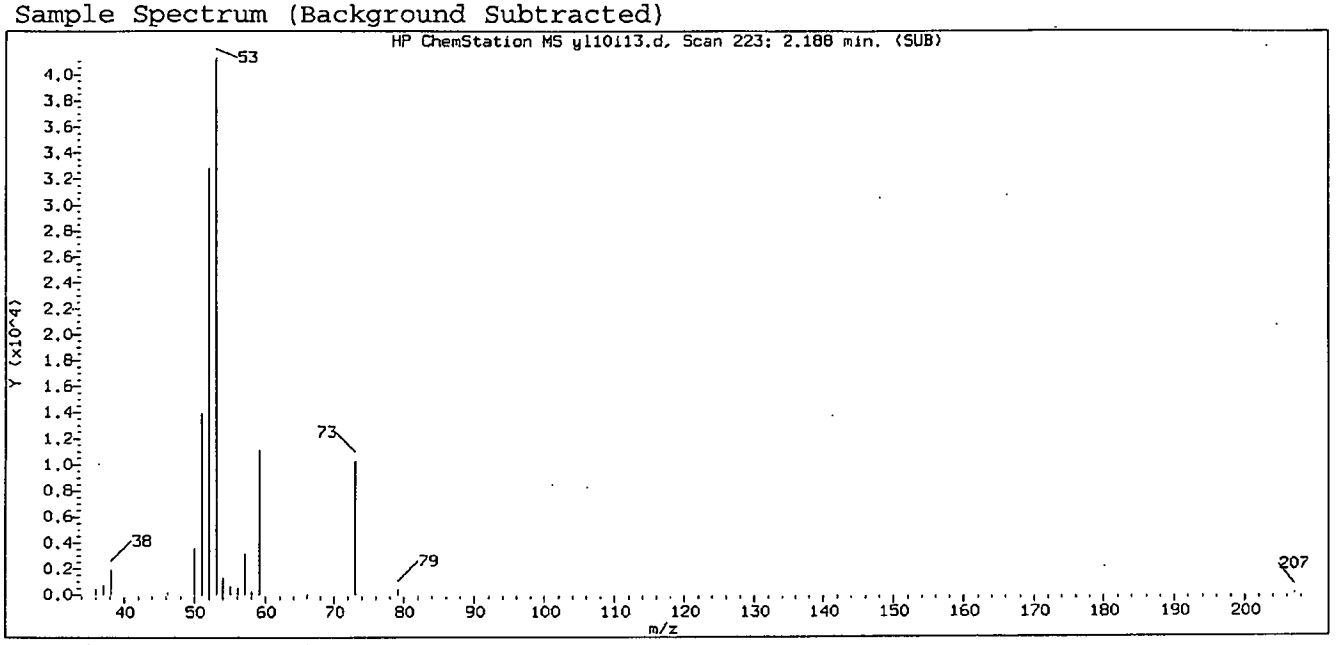
Compound Number	: 30		
Compound Name	: Acrylonitrile		
Scan Number	: 223		
Retention Time (minutes)	: 2.188		
Quant Ion	: 53.00		
Area (flag)	: 279183M		
On-Column Amount (ng)	: 53.5496		
Integration start scan	: 211	Integration stop scan:	250
Y at integration start	: 264	Y at integration end:	264

Reason for manual integration: improper integration

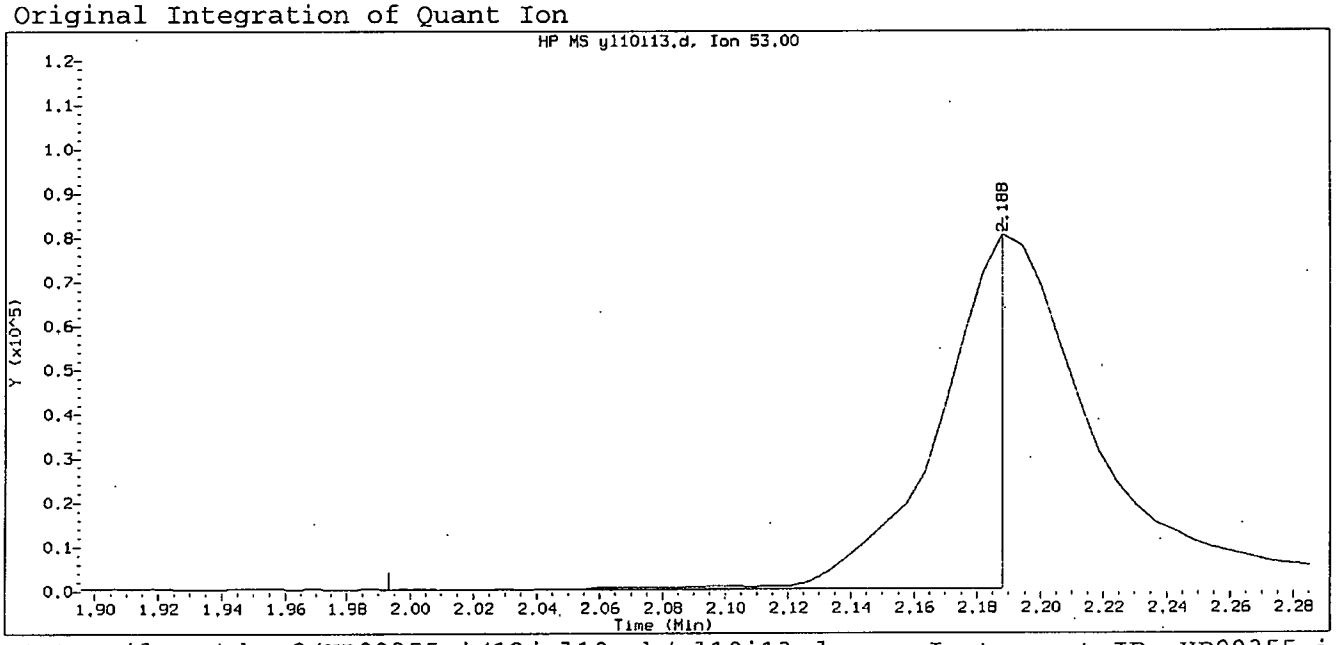
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i13.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 12:41 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:10
Date, time and analyst ID of latest file update: 10-Jul-2012 13:10 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 30		
Compound Name	: Acrylonitrile		
Scan Number	: 223		
Retention Time (minutes)	: 2.188		
Quant Ion	: 53.00		
Area	: 110643		
On-column Amount (ng)	: 27.0525		
Integration start scan	: 190	Integration stop scan:	222
Y at integration start	: 324	Y at integration end:	324

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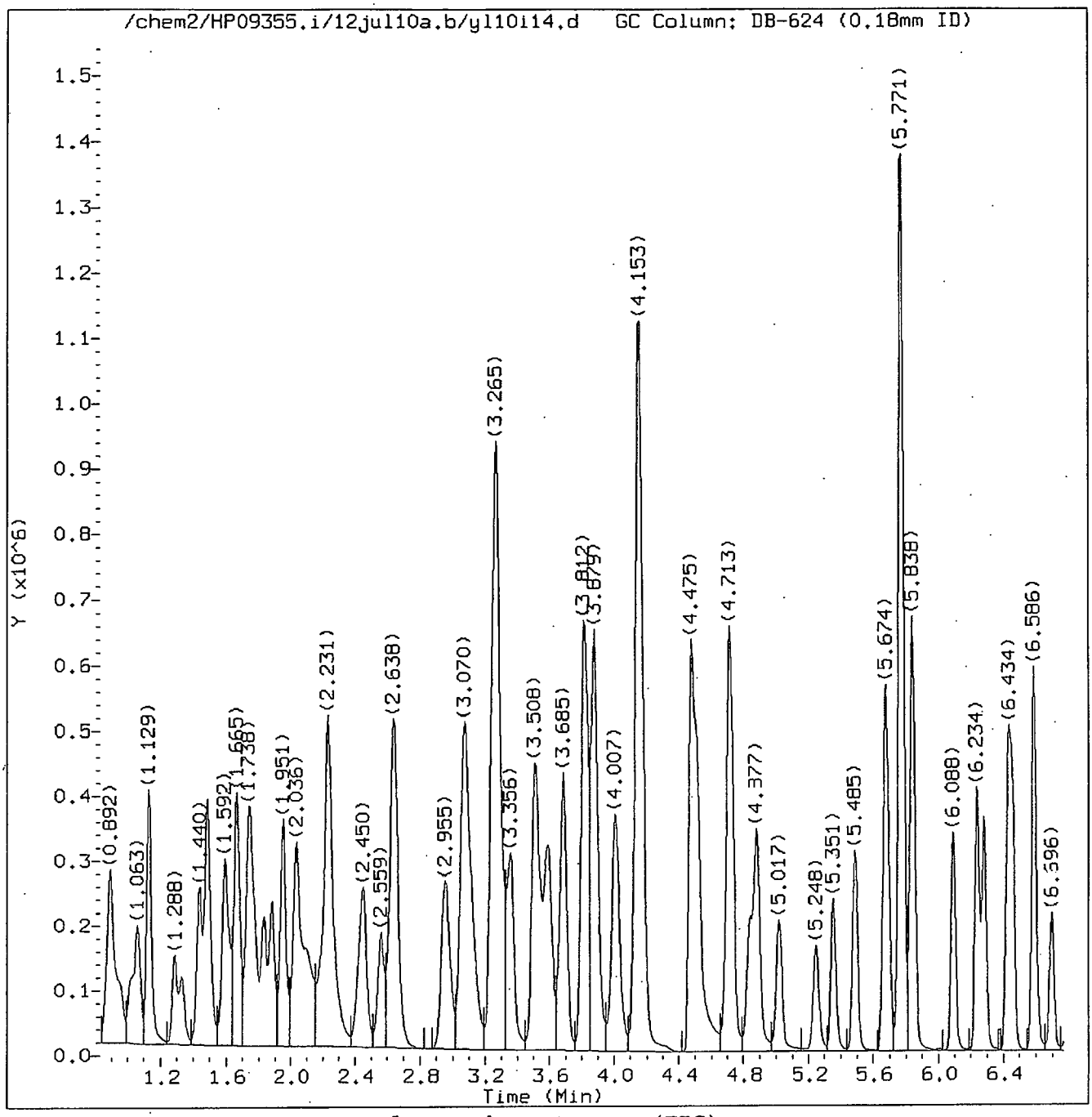
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d
Injection date and time: 10-JUL-2012 13:07

Instrument ID: HP09355.i
Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m
Calibration date and time: 10-JUL-2012 13:58

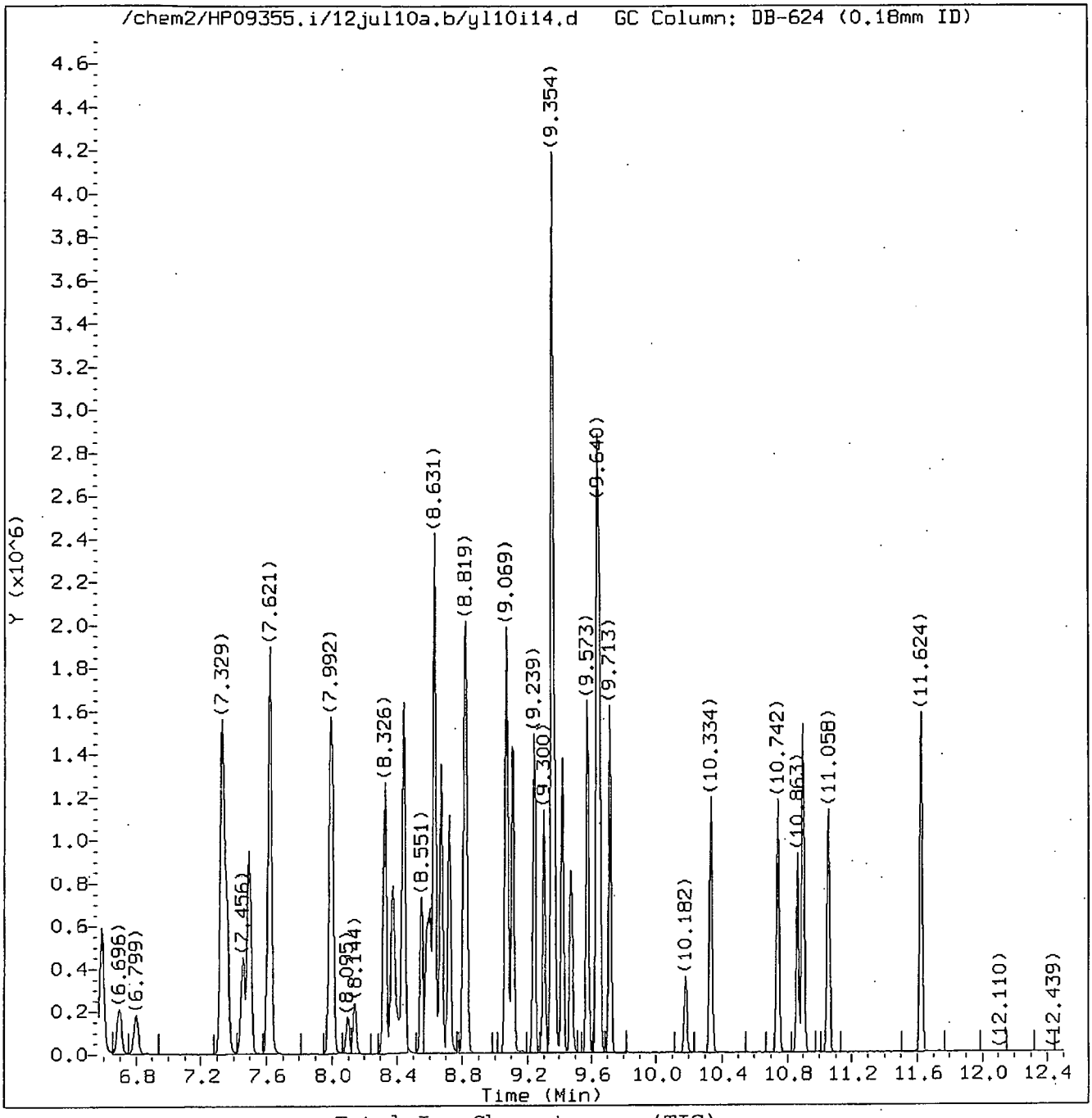
Sublist used: 8260WI

Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD020

Lab Sample ID: VSTD020

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 11-JUL-2012 18:07
Date, time and analyst ID of latest file update: 11-Jul-2012 18:07 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.020	85	207053	21.355
3) Chloromethane	(1)	1.063	50	199931M	19.649
4) 1,3-Butadiene	(1)	1.129	39	131481	18.856
5) Vinyl Chloride	(1)	1.136	62	195380	20.404
7) Bromomethane	(1)	1.288	94	117264	19.988
8) Chloroethane	(1)	1.330	64	100977	20.274
9) Dichlorofluoromethane	(1)	1.434	67	232782	19.832
11) n-Pentane	(1)	1.482	43	243302	21.318
10) Trichlorofluoromethane	(1)	1.494	101	214381M	21.013
13) Ethyl Ether	(1)	1.592	59	115670	19.257
14) Freon 123a	(1)	1.604	67	139971	19.781
15) Acrolein	(4)	1.665	56	483865	175.085
16) 1,1-Dichloroethene	(1)	1.732	96	105053	19.428
17) Acetone	(1)	1.750	58	54196	38.680
18) Freon 113	(1)	1.762	101	114557	19.447
21) 2-Propanol	(4)	1.829	45	188258M	186.046
20) Methyl Iodide	(1)	1.835	142	198556	19.303
22) Carbon Disulfide	(1)	1.884	76	324485	19.057
24) Allyl Chloride	(1)	1.951	41	197795	19.318
25) Methyl Acetate	(1)	1.957	43	183914	18.503
26) Methylene Chloride	(1)	2.030	84	124376	18.736
28)*t-Butyl Alcohol-d10	(4)	2.042	65	403476	250.000
29) t-Butyl Alcohol	(4)	2.103	59	422384M	185.680
30) Acrylonitrile	(1)	2.200	53	102910M	18.877
31) trans-1,2-Dichloroethene	(1)	2.231	96	125873	19.348
32) Methyl Tertiary Butyl Ether	(1)	2.243	73	451973	19.217
33) n-Hexane	(1)	2.450	57	215883	18.926
34) 1,1-Dichloroethane	(1)	2.559	63	247761	19.335
36) di-Isopropyl Ether	(1)	2.638	45	482434	19.144
37) 2-Chloro-1,3-Butadiene	(1)	2.644	53	223606	19.413
39) Ethyl t-Butyl Ether	(1)	2.955	59	468449	19.642
40) cis-1,2-Dichloroethene	(1)	3.064	96	140126	19.146
41) 2-Butanone	(1)	3.076	43	300634	37.338
42) 2,2-Dichloropropane	(1)	3.082	77	195370	19.508
43) Propionitrile	(4)	3.125	54	447462	181.742
46) Methacrylonitrile	(1)	3.265	67	497005	95.452
47) Bromochloromethane	(1)	3.277	128	70350	18.565
48) Tetrahydrofuran	(4)	3.326	71	80464	35.326

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 07/11/2012 at 18:08.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Chloroform	(1)	3.362	83	232153	19.118
52)$Dibromofluoromethane	(1)	3.508	113	279159	50.027
51)$Dibromofluoromethane(mz111)	(1)	3.508	111	283780	49.776
53) 1,1,1-Trichloroethane	(1)	3.533	97	220522	19.712
54) Cyclohexane (mz 84)	(1)	3.587	84	204546	19.613
55) Cyclohexane (mz 69)	(1)	3.593	69	75958	19.691
56) Cyclohexane	(1)	3.593	56	251658	19.629
45) 1,2-Dichloroethene (total)	(1)		96	265999	38.582
57) 1,1-Dichloropropene	(1)	3.679	75	187807	19.212
58) Carbon Tetrachloride	(1)	3.691	117	163676	18.854
60)$1,2-Dichloroethane-d4(mz104)	(1)	3.812	104	46183	49.930
61)$1,2-Dichloroethane-d4(mz65)	(1)	3.812	65	379413	51.418
59) Isobutyl Alcohol	(4)	3.812	41	316564M	458.502
62)$1,2-Dichloroethane-d4	(1)	3.812	102	74544	51.380
63) Benzene	(1)	3.873	78	548499	19.330
65) 1,2-Dichloroethane	(1)	3.885	62	200811	18.909
64) 1,2-Dichloroethane (mz 98)	(1)	3.891	98	17602	18.963
69) t-Amyl Methyl Ether	(1)	4.007	73	421812	18.910
71)*Fluorobenzene	(1)	4.147	96	1206833	50.000
72) n-Heptane	(1)	4.165	43	263005	20.291
73) n-Butanol	(4)	4.475	56	580326	919.572
74) Trichloroethene	(1)	4.512	95	138417	19.180
75) Methylcyclohexane (mz98)	(1)	4.707	98	110964	19.309
76) Methylcyclohexane	(1)	4.713	83	253346	19.627
77) 1,2-Dichloropropane	(1)	4.725	63	148861	19.076
78) Dibromomethane	(1)	4.840	93	93467	18.919
79) 1,4-Dioxane	(4)	4.865	88	78081	467.264
80) Methyl Methacrylate	(1)	4.883	69	154637	18.665
83) Bromodichloromethane	(1)	5.017	83	163660	18.327
85) 2-Nitropropane	(1)	5.248	41	136679	35.577
86) 2-Chloroethyl Vinyl Ether	(1)	5.358	63	130272	19.931
87) cis-1,3-Dichloropropene	(1)	5.485	75	218796	18.633
89) 4-Methyl-2-Pentanone	(1)	5.674	43	569194	37.676
93)$Toluene-d8	(2)	5.771	98	1190566	49.830
92)$Toluene-d8(mz100)	(2)	5.771	100	784152	48.655
94) Toluene	(2)	5.838	92	350938	19.247
95) trans-1,3-Dichloropropene	(2)	6.088	75	214689	18.370
96) Ethyl Methacrylate	(2)	6.234	69	246543	18.785

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,1,2-Trichloroethane	(2)	6.276	97	132829	18.869
98) Tetrachloroethene	(2)	6.428	166	161456	19.239
99) 1,3-Dichloropropane	(2)	6.453	76	236209	18.736
101) 2-Hexanone	(2)	6.586	43	461939	37.404
102) Dibromochloromethane	(2)	6.696	129	127214	17.739
104) 1,2-Dibromoethane	(2)	6.799	107	146678	18.773
106)*Chlorobenzene-d5	(2)	7.329	117	876837	50.000
107) Chlorobenzene	(2)	7.359	112	393425	19.098
108) 1,1,1,2-Tetrachloroethane	(2)	7.456	131	129939	18.563
109) Ethylbenzene	(2)	7.493	91	678775	19.267
110) m+p-Xylene	(2)	7.621	106	532841	38.807
113) o-Xylene	(2)	7.986	106	262727	19.285
114) Styrene	(2)	7.998	104	444745	19.108
115) Bromoform	(2)	8.144	173	101281	17.356
112) Xylene (Total)	(2)		106	795568	58.091
116) Isopropylbenzene	(2)	8.326	105	694348	19.706
118) Cyclohexanone	(4)	8.375	55	381410	465.737
120)$4-Bromofluorobenzene(mz174)	(2)	8.442	174	387261	50.050
119)$4-Bromofluorobenzene	(2)	8.442	95	449013	50.482
121) Bromobenzene	(3)	8.551	156	177456	19.113
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	230513	19.195
123) 1,2,3-Trichloropropane	(3)	8.600	110	73210	19.098
124) trans-1,4-Dichloro-2-Butene	(3)	8.631	53	391879	93.558
125) n-Propylbenzene	(3)	8.673	91	808510	19.918
126) 2-Chlorotoluene	(3)	8.722	126	165743	19.327
128) 4-Chlorotoluene	(3)	8.813	126	172063	19.247
127) 1,3,5-Trimethylbenzene	(3)	8.819	105	596838	19.744
130) tert-Butylbenzene	(3)	9.069	134	133271	19.457
131) Pentachloroethane	(3)	9.075	167	101434	18.294
132) 1,2,4-Trimethylbenzene	(3)	9.111	105	612345	19.708
133) sec-Butylbenzene	(3)	9.239	105	750313	20.079
134) 1,3-Dichlorobenzene	(3)	9.300	146	343362	19.413
135) p-Isopropyltoluene	(3)	9.354	119	672074	19.958
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	510087	50.000
138) 1,4-Dichlorobenzene	(3)	9.373	146	353023	19.431
139) 1,2,3-Trimethylbenzene	(3)	9.421	105	616268	19.464
141) Benzyl Chloride	(3)	9.476	91	473713	18.691
142) 1,3-Diethylbenzene	(3)	9.573	119	394999	19.480

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

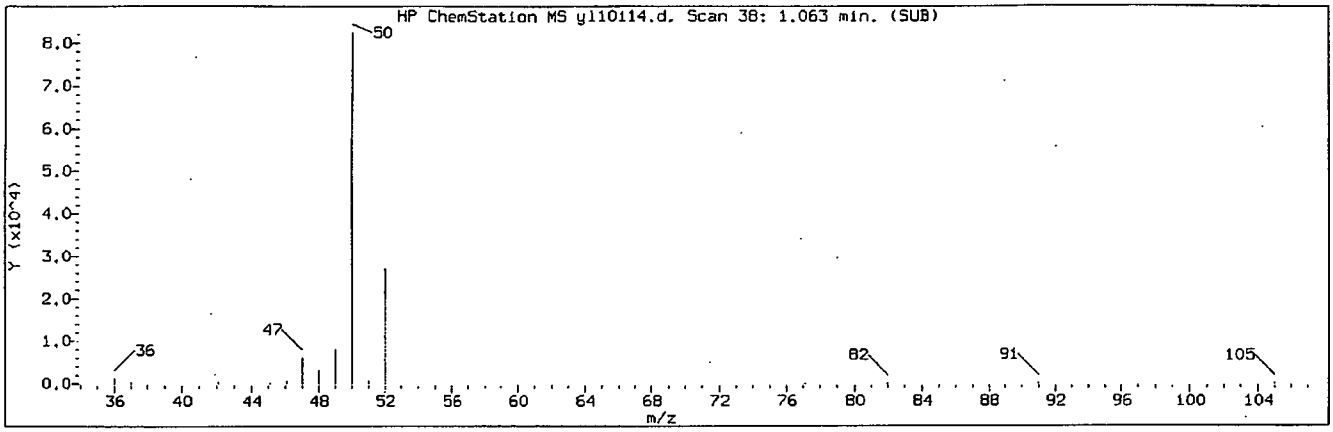
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

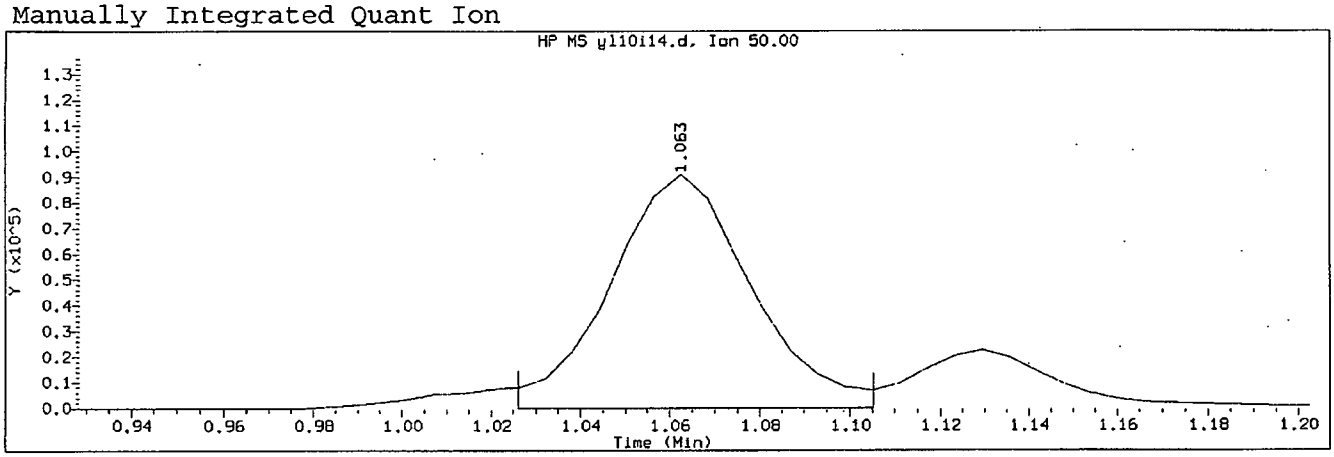
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dichlorobenzene	(3)	9.634	146	332619	19.589
143) 1,4-Diethylbenzene	(3)	9.634	119	415278	19.812
145) n-Butylbenzene	(3)	9.653	92	327088	19.855
146) 1,2-Diethylbenzene	(3)	9.713	119	328698	19.365
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	64049	19.042
149) 1,3,5-Trichlorobenzene	(3)	10.334	180	279493	19.875
150) 1,2,4-Trichlorobenzene	(3)	10.742	180	264348	20.056
151) Hexachlorobutadiene	(3)	10.863	225	131322	20.151
152) Naphthalene	(3)	10.900	128	876451	19.487
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	261088	20.184
154) 2-Methylnaphthalene	(3)	11.624	142	536071	20.688

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

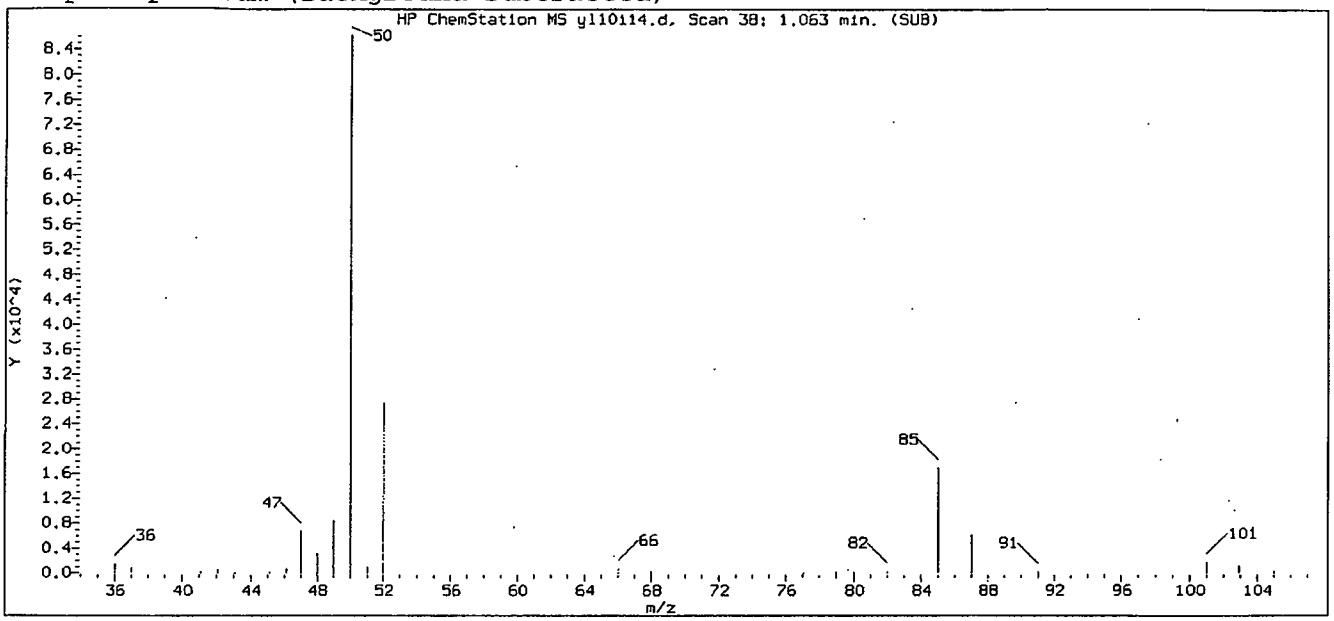
Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 38		
Retention Time (minutes)	: 1.063		
Quant Ion	: 50.00		
Area (flag)	: 199931M		
On-Column Amount (ng)	: 20.0195		
Integration start scan	: 31	Integration stop scan:	44
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

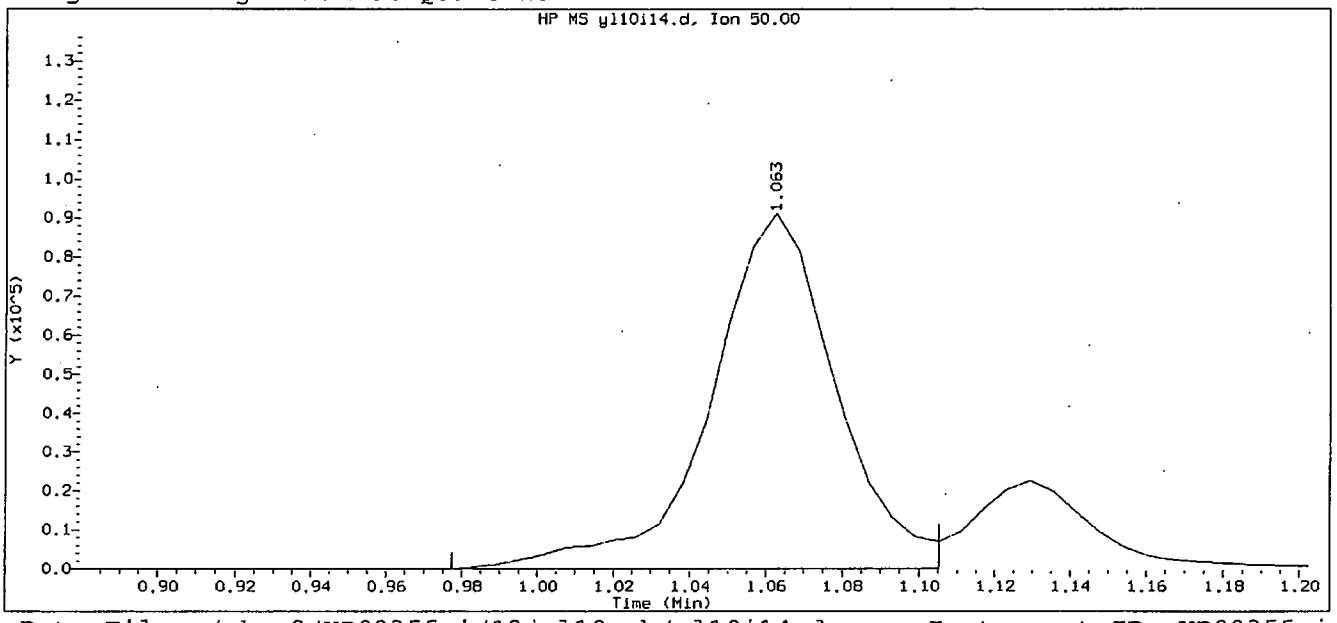
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

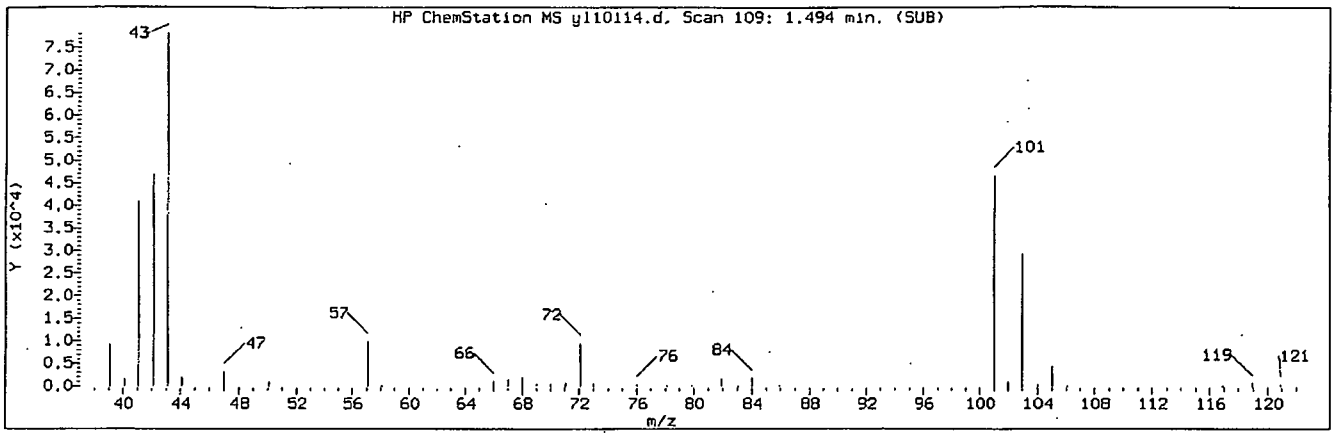
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:23
Date, time and analyst ID of latest file update: 10-Jul-2012 13:23 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

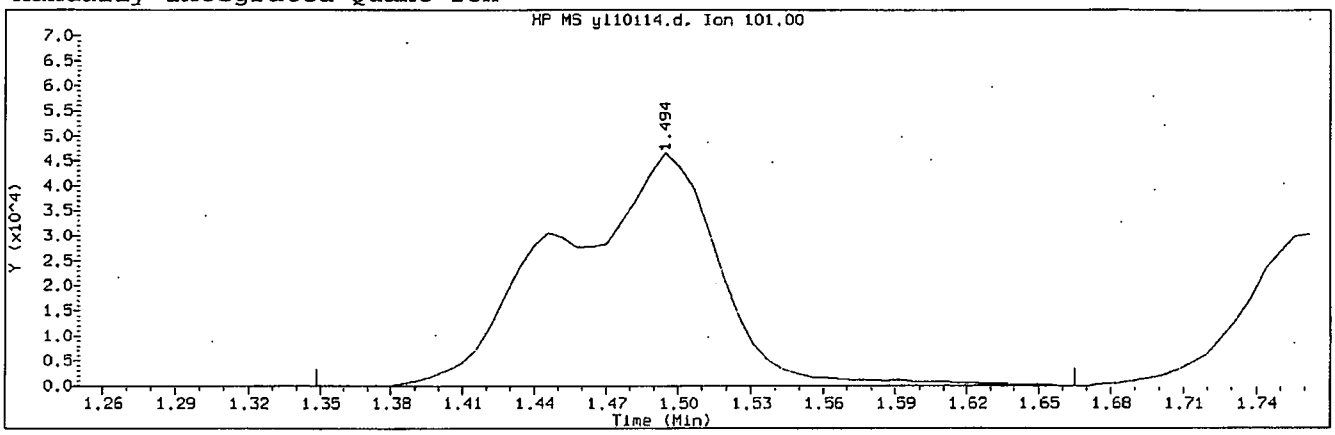
Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 38		
Retention Time (minutes)	: 1.063		
Quant Ion	: 50.00		
Area	: 208553		
On-column Amount (ng)	: 21.7797		
Integration start scan	: 23	Integration stop scan:	44
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

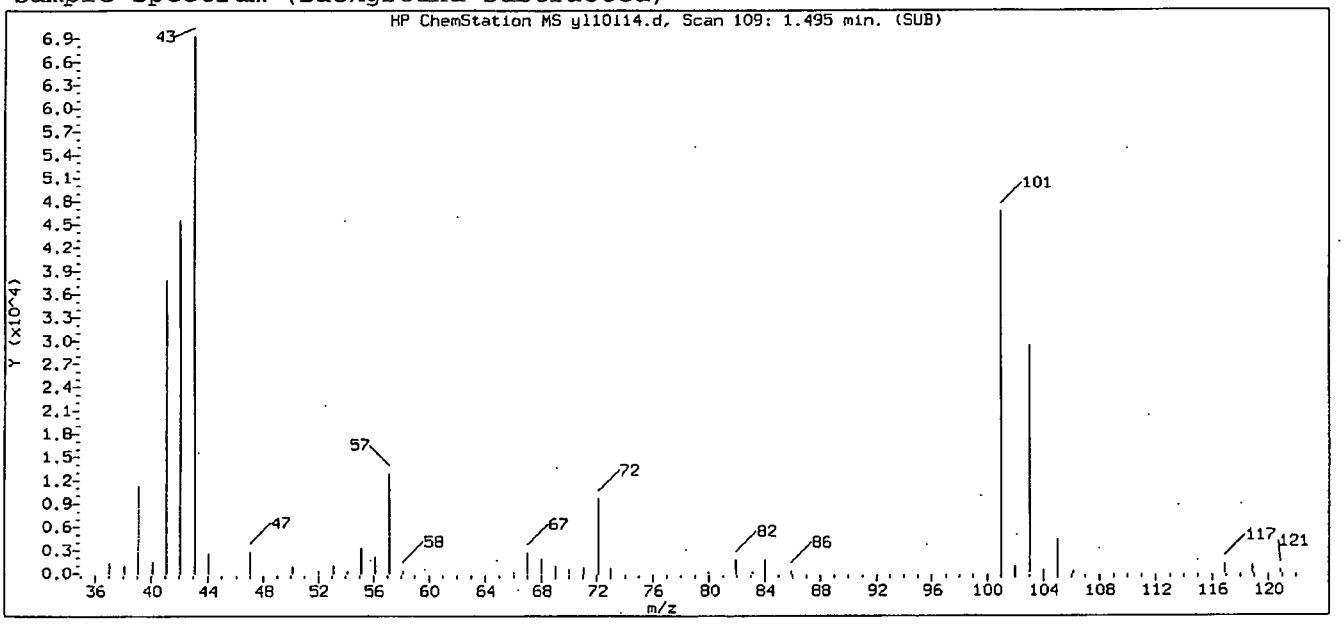
Compound Number	: 10		
Compound Name	: Trichlorofluoromethane		
Scan Number	: 109		
Retention Time (minutes)	: 1.494		
Quant Ion	: 101.00		
Area (flag)	: 214381M		
On-Column Amount (ng)	: 20.4835		
Integration start scan	: 84	Integration stop scan:	136
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

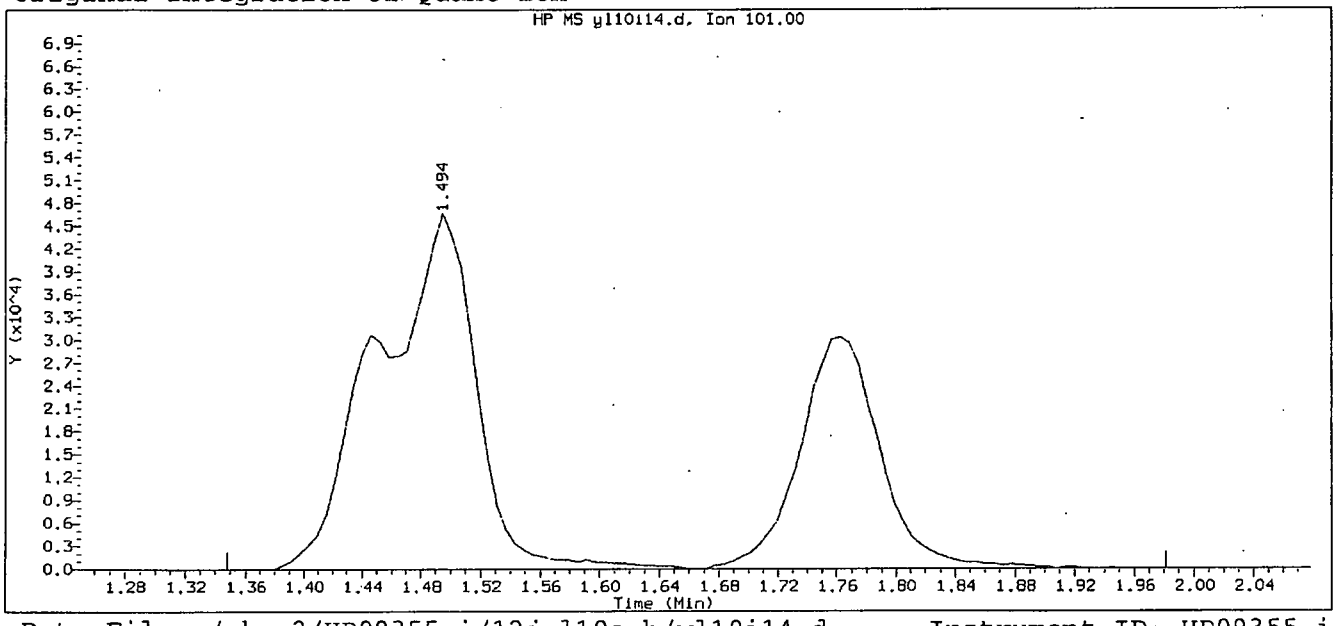
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

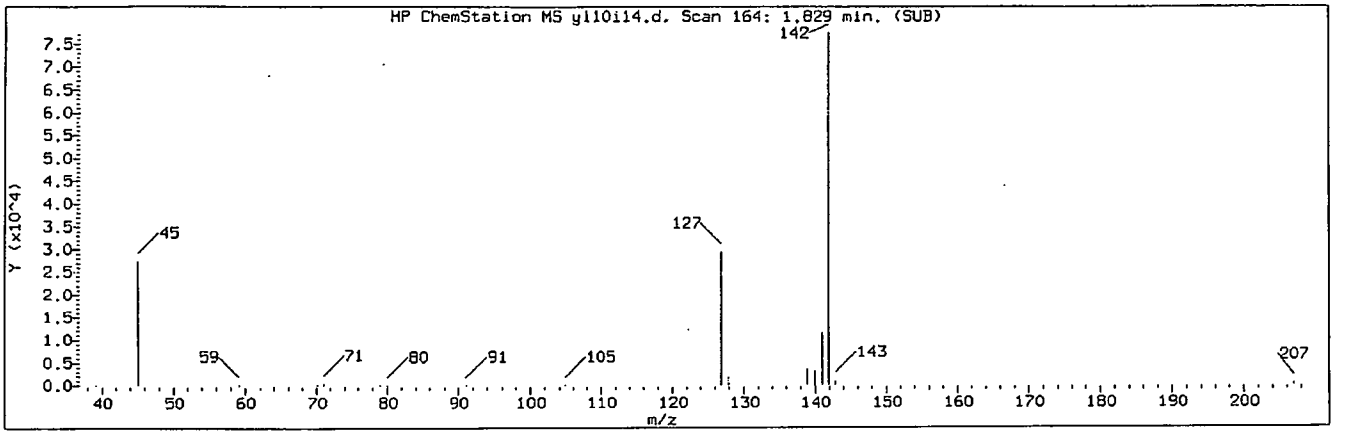
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:23
Date, time and analyst ID of latest file update: 10-Jul-2012 13:23 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

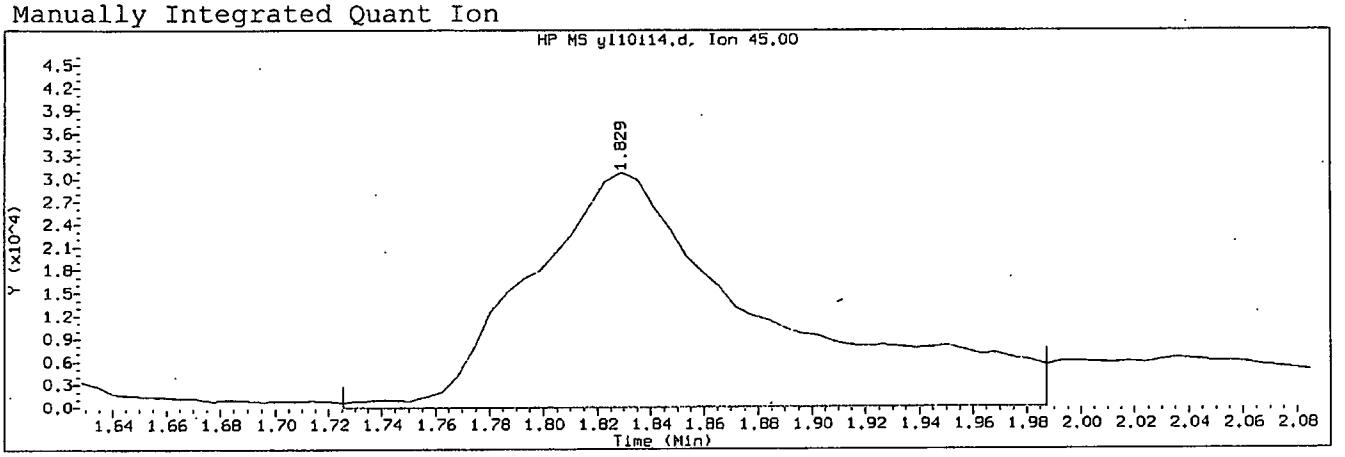
Compound Number	: 10		
Compound Name	: Trichlorofluoromethane		
Scan Number	: 109		
Retention Time (minutes)	: 1.494		
Quant Ion	: 101.00		
Area	: 328938		
On-column Amount (ng)	: 28.5002		
Integration start scan	: 84	Integration stop scan:	188
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 11-JUL-2012 18:07
Date, time and analyst ID of latest file update: 11-Jul-2012 18:07 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

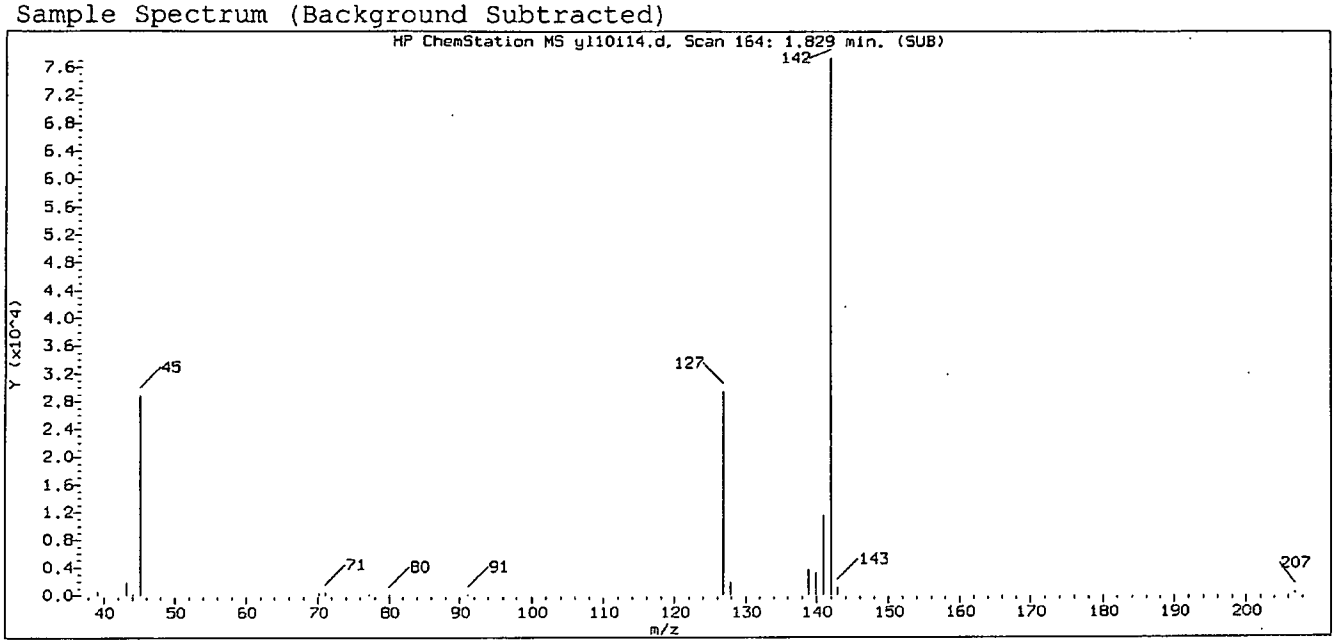
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 164
Retention Time (minutes): 1.829
Quant Ion : 45.00
Area (flag) : 188258M
On-Column Amount (ng) : 186.0462
Integration start scan : 146 Integration stop scan: 189
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

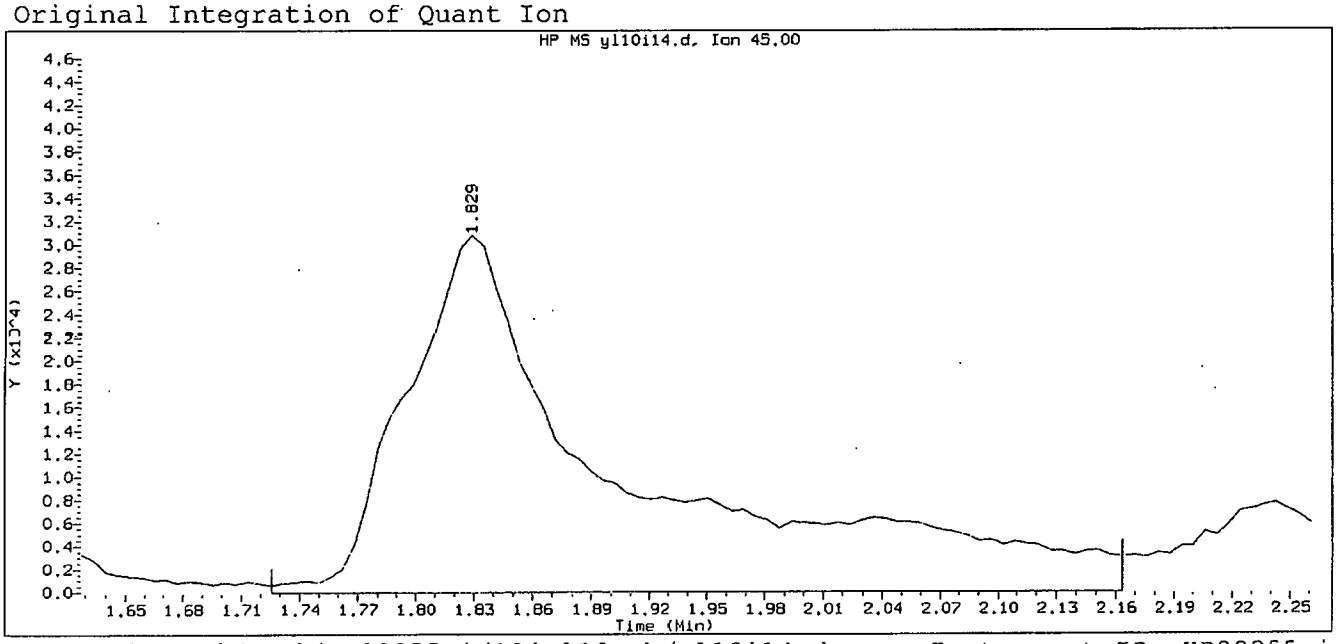
Analyst responsible for change: Digitally signed by Sara E. Johnson on 07/11/2012 at 18:08. Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

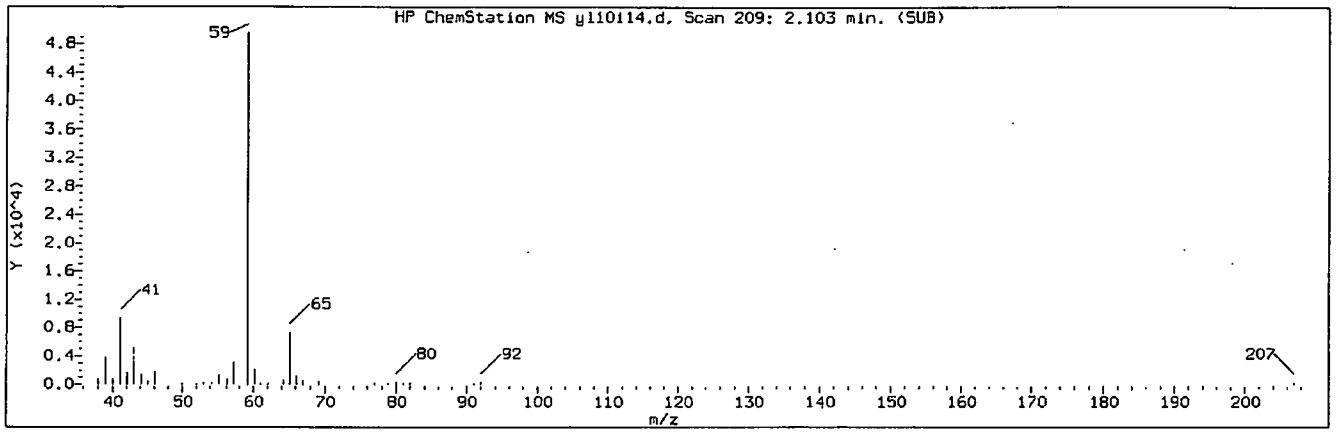
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:23
Date, time and analyst ID of latest file update: 10-Jul-2012 13:23 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

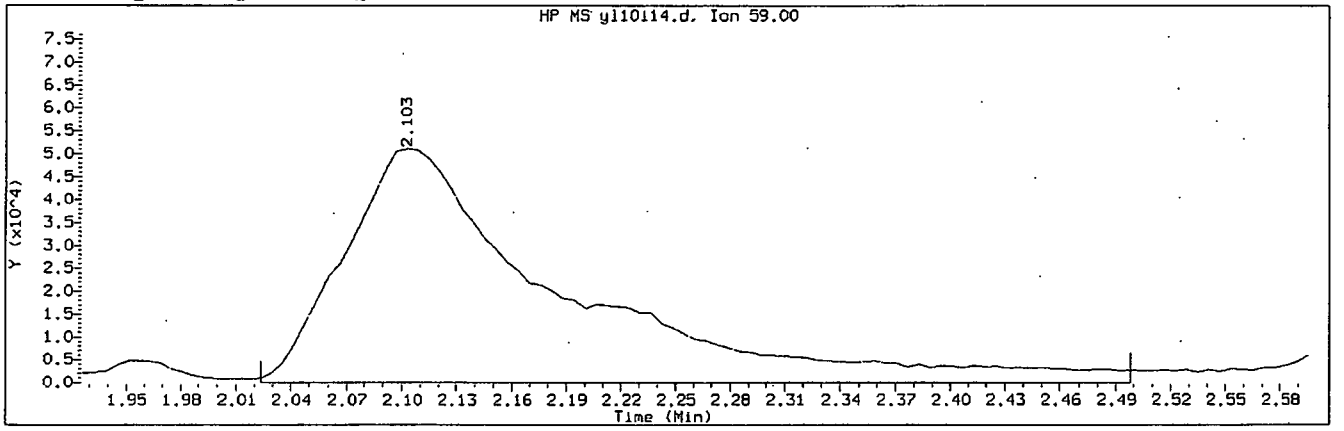
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 164		
Retention Time (minutes)	: 1.829		
Quant Ion	: 45.00		
Area	: 239604		
On-column Amount (ng)	: 191.9527		
Integration start scan	: 146	Integration stop scan:	218
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sara E. Johnson on 07/11/2012 at 18:08.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul 2012 13:58 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

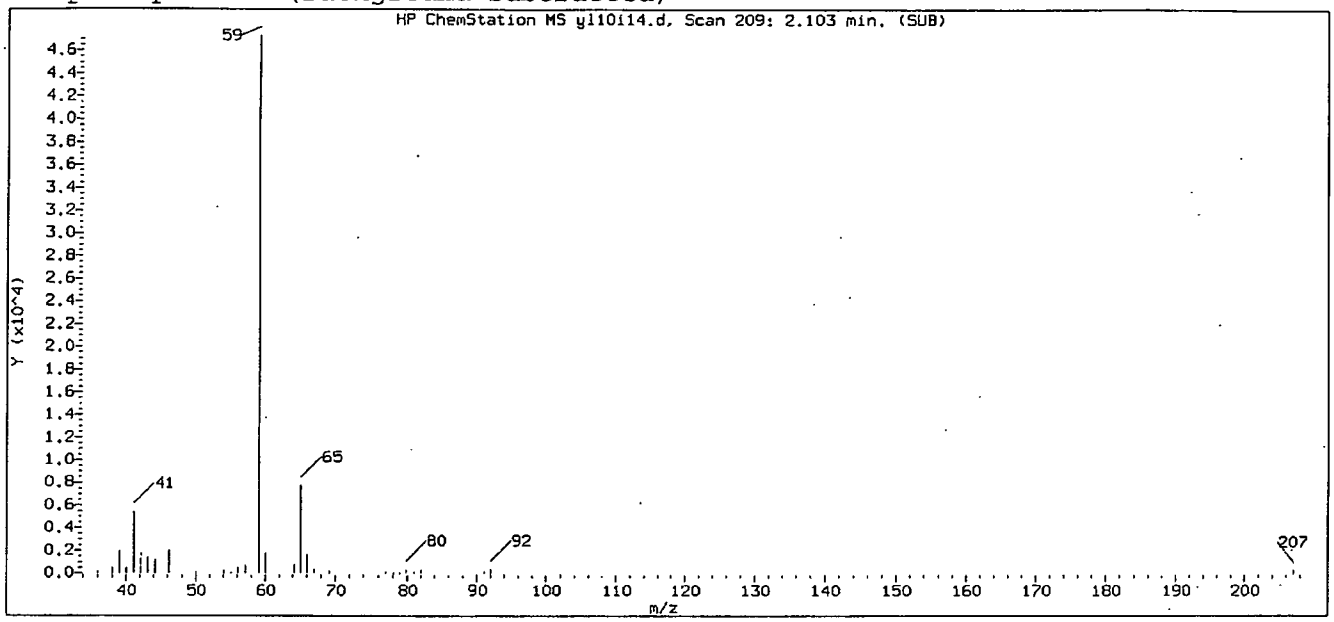
Compound Number : 29
Compound Name : t-Butyl Alcohol
Scan Number : 209
Retention Time (minutes): 2.103
Quant Ion : 59.00
Area (flag) : 422384M
On-Column Amount (ng) : 179.9617
Integration start scan : 195 Integration stop scan: 273
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

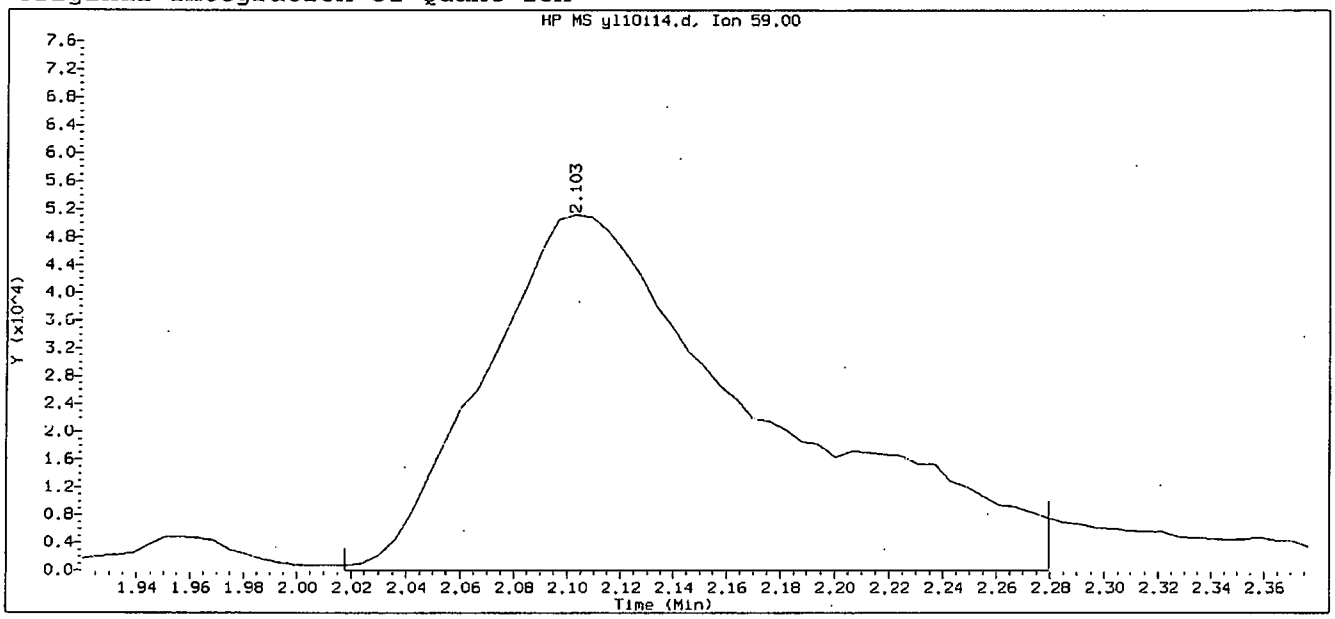
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

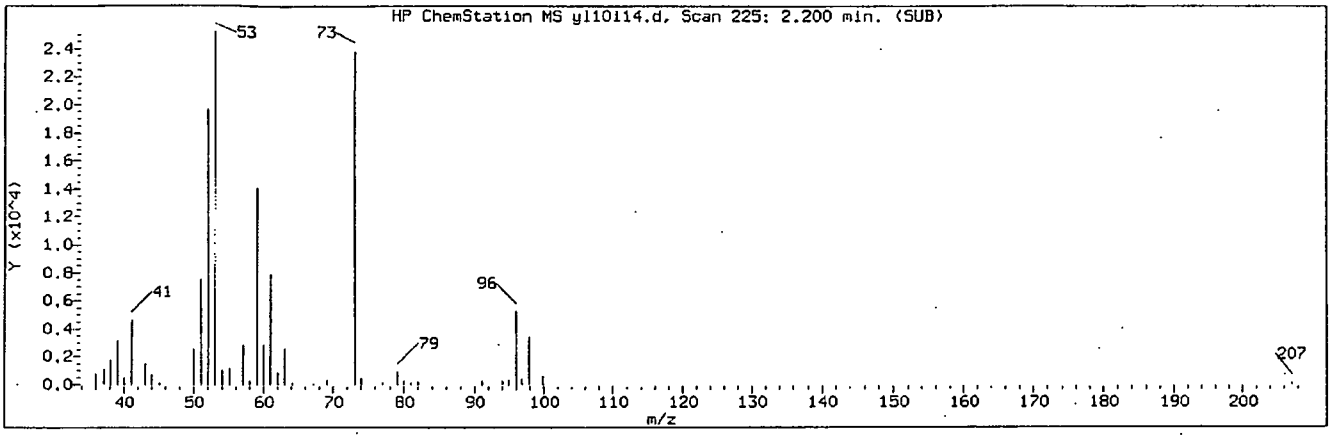
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:23
Date, time and analyst ID of latest file update: 10-Jul-2012 13:23 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

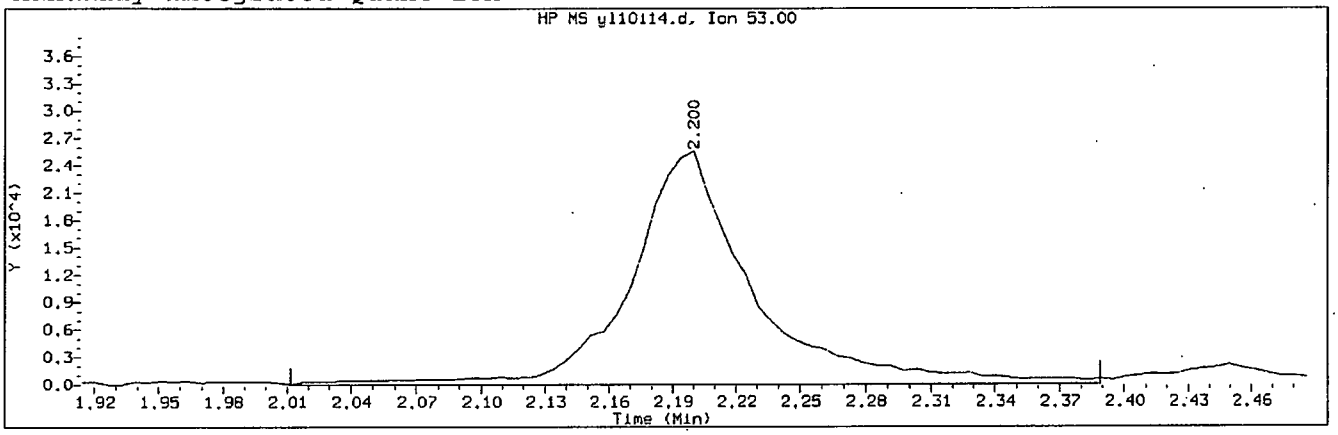
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 209		
Retention Time (minutes)	: 2.103		
Quant Ion	: 59.00		
Area	: 367653		
On-column Amount (ng)	: 162.4997		
Integration start scan	: 194	Integration stop scan:	237
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

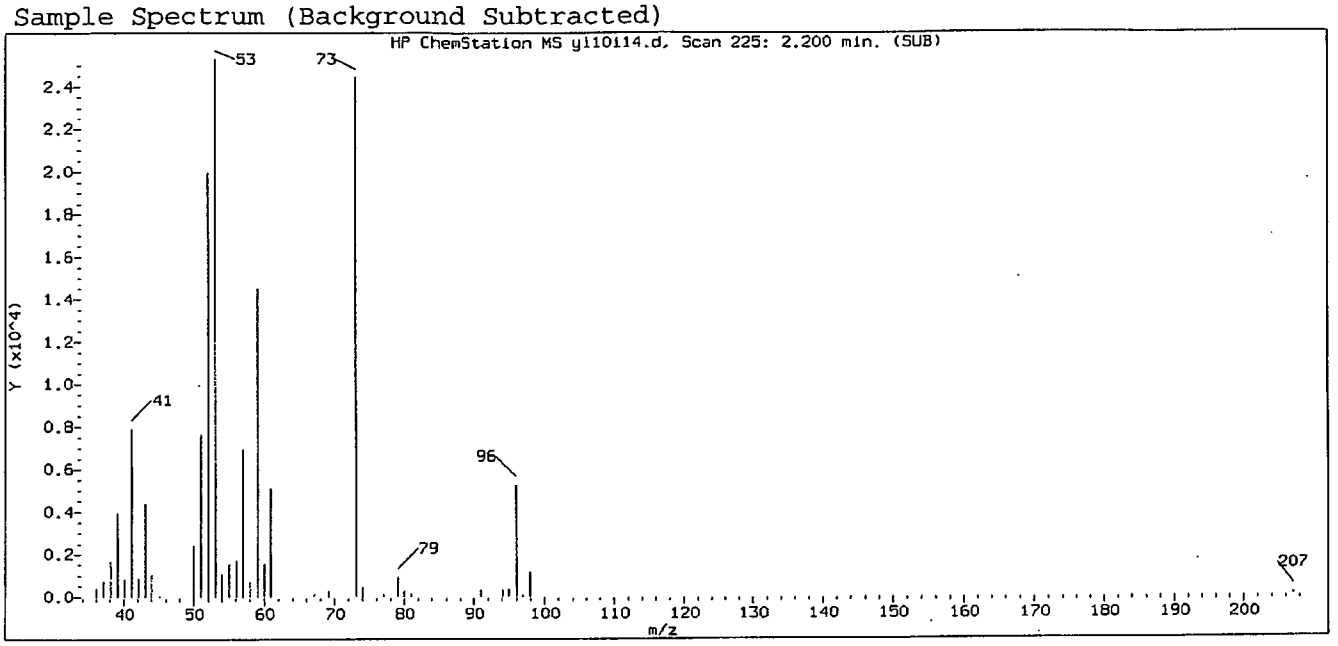
Compound Number	: 30		
Compound Name	: Acrylonitrile		
Scan Number	: 225		
Retention Time (minutes)	: 2.200		
Quant Ion	: 53.00		
Area (flag)	: 102910M		
On-Column Amount (ng)	: 19.5064		
Integration start scan	: 193	Integration stop scan:	255
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

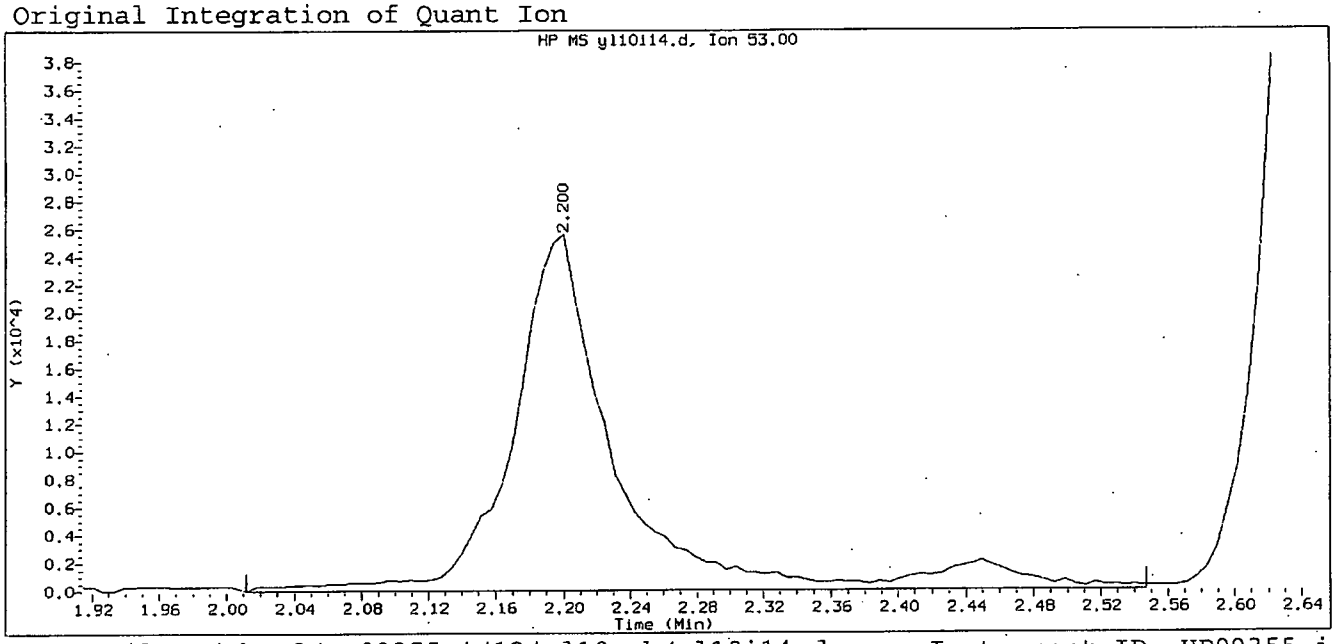
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

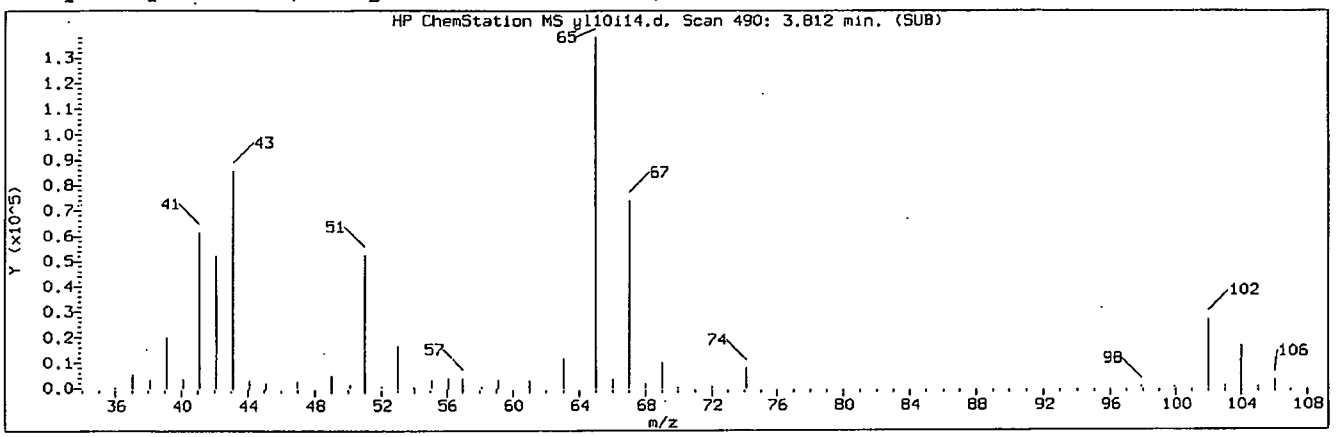
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:23
Date, time and analyst ID of latest file update: 10-Jul-2012 13:23 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

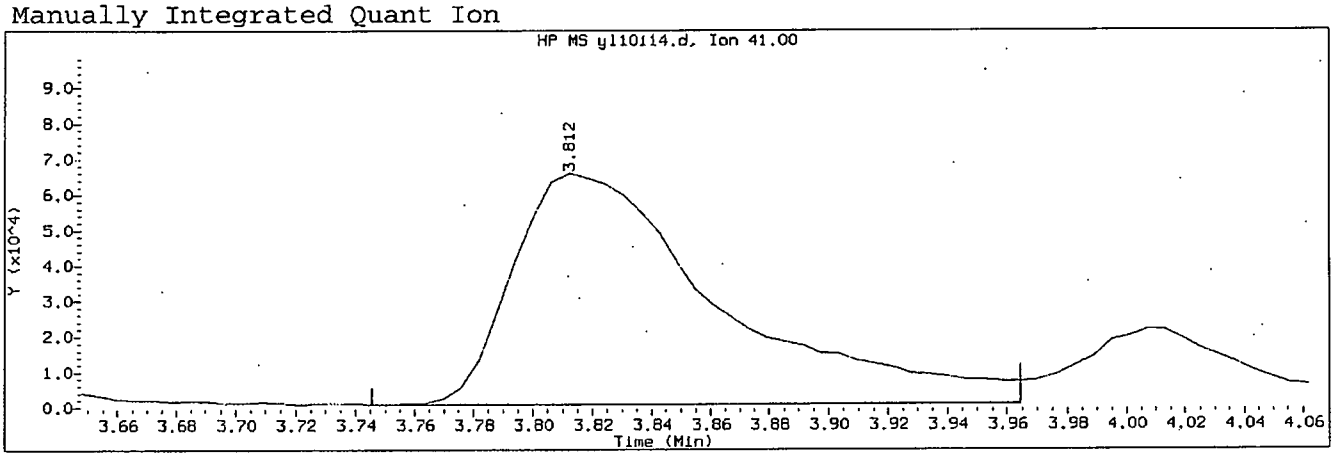
Compound Number	: 30		
Compound Name	: Acrylonitrile		
Scan Number	: 225		
Retention Time (minutes)	: 2.200		
Quant Ion	: 53.00		
Area	: 111670		
On-column Amount (ng)	: 21.2377		
Integration start scan	: 193	Integration stop scan:	281
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10 JUL 2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

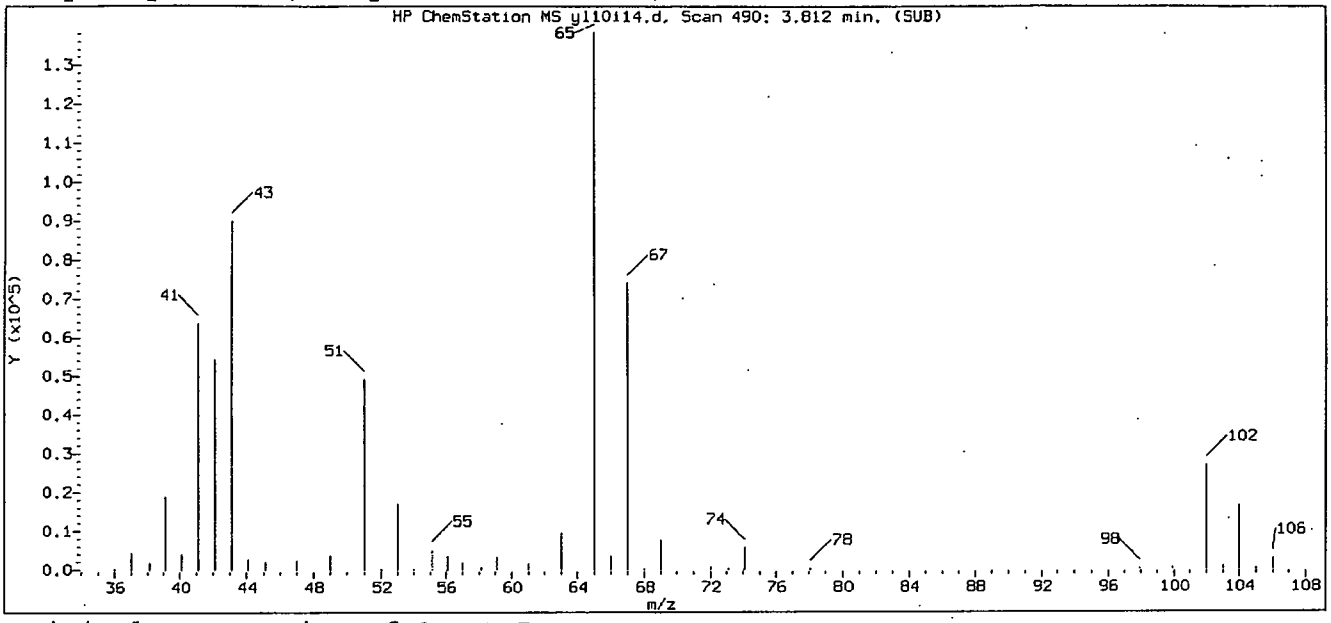
Compound Number	: 59		
Compound Name	: Isobutyl Alcohol		
Scan Number	: 490		
Retention Time (minutes)	: 3.812		
Quant Ion	: 41.00		
Area (flag)	: 316564M		
On-Column Amount (ng)	: 458.5024		
Integration start scan	: 478	Integration stop scan:	514
Y at integration start	: 952	Y at integration end:	952

Reason for manual integration: improper integration

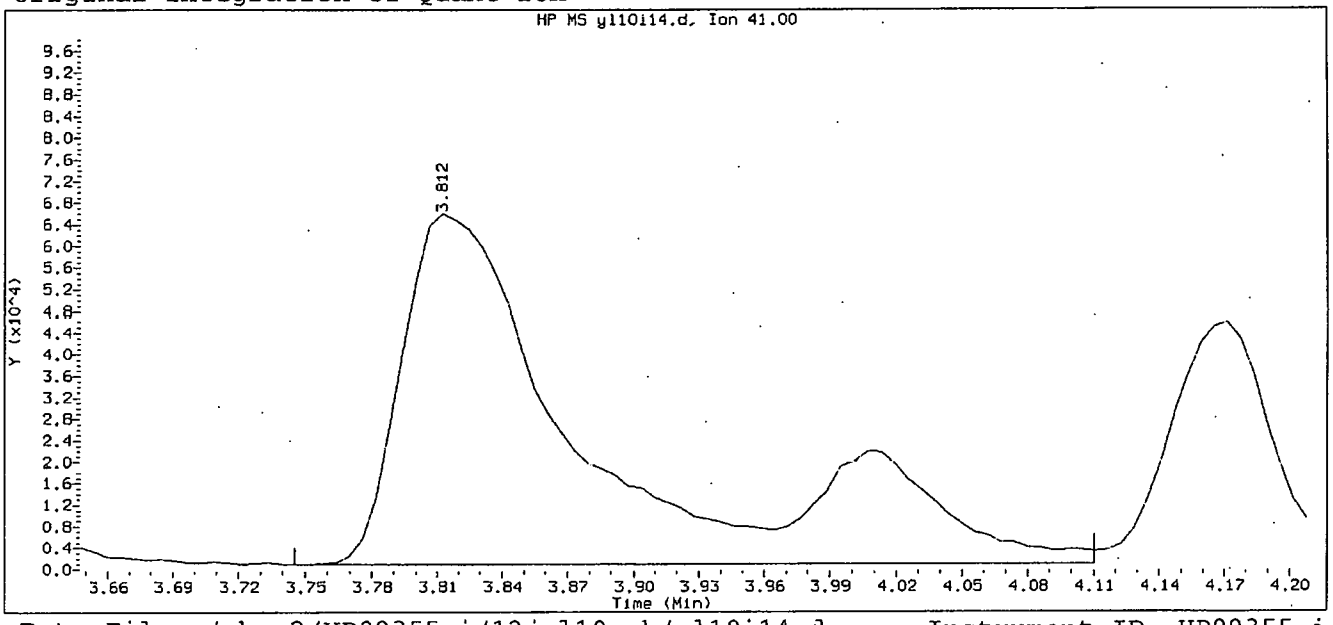
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14.40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



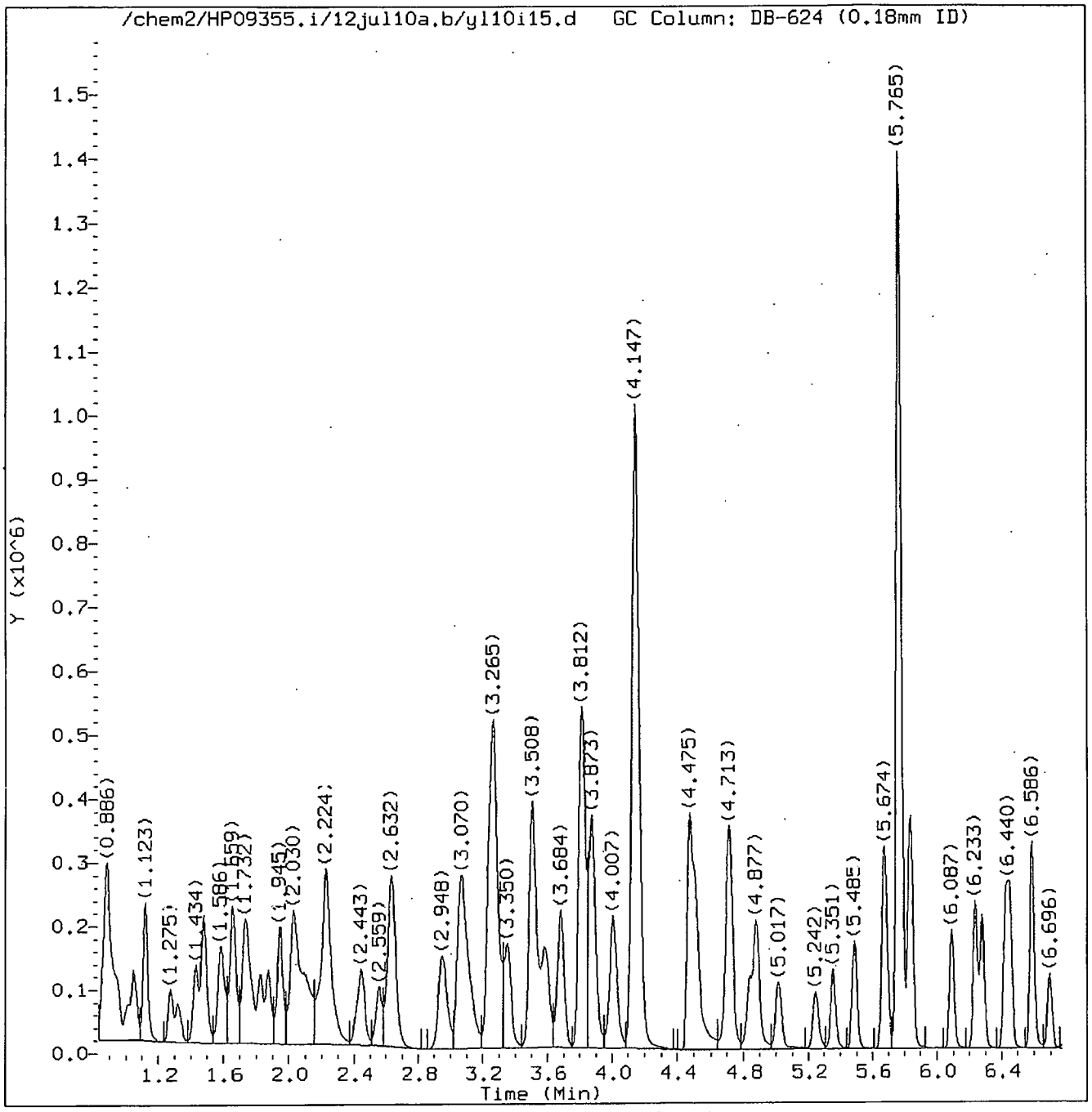
Data File: /chem2/HP09355.i/12jul10a.b/yl10i14.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:07 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:23
Date, time and analyst ID of latest file update: 10-Jul-2012 13:23 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number	: 59		
Compound Name	: Isobutyl Alcohol		
Scan Number	: 490		
Retention Time (minutes)	: 3.812		
Quant Ion	: 41.00		
Area	: 400350		
On-column Amount (ng)	: 555.6861		
Integration start scan	: 478	Integration stop scan:	538
Y at integration start	: 952	Y at integration end:	952

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d
Injection date and time: 10-JUL-2012 13:28

Instrument ID: HP09355.i
Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m
Calibration date and time: 10-JUL-2012 13:58

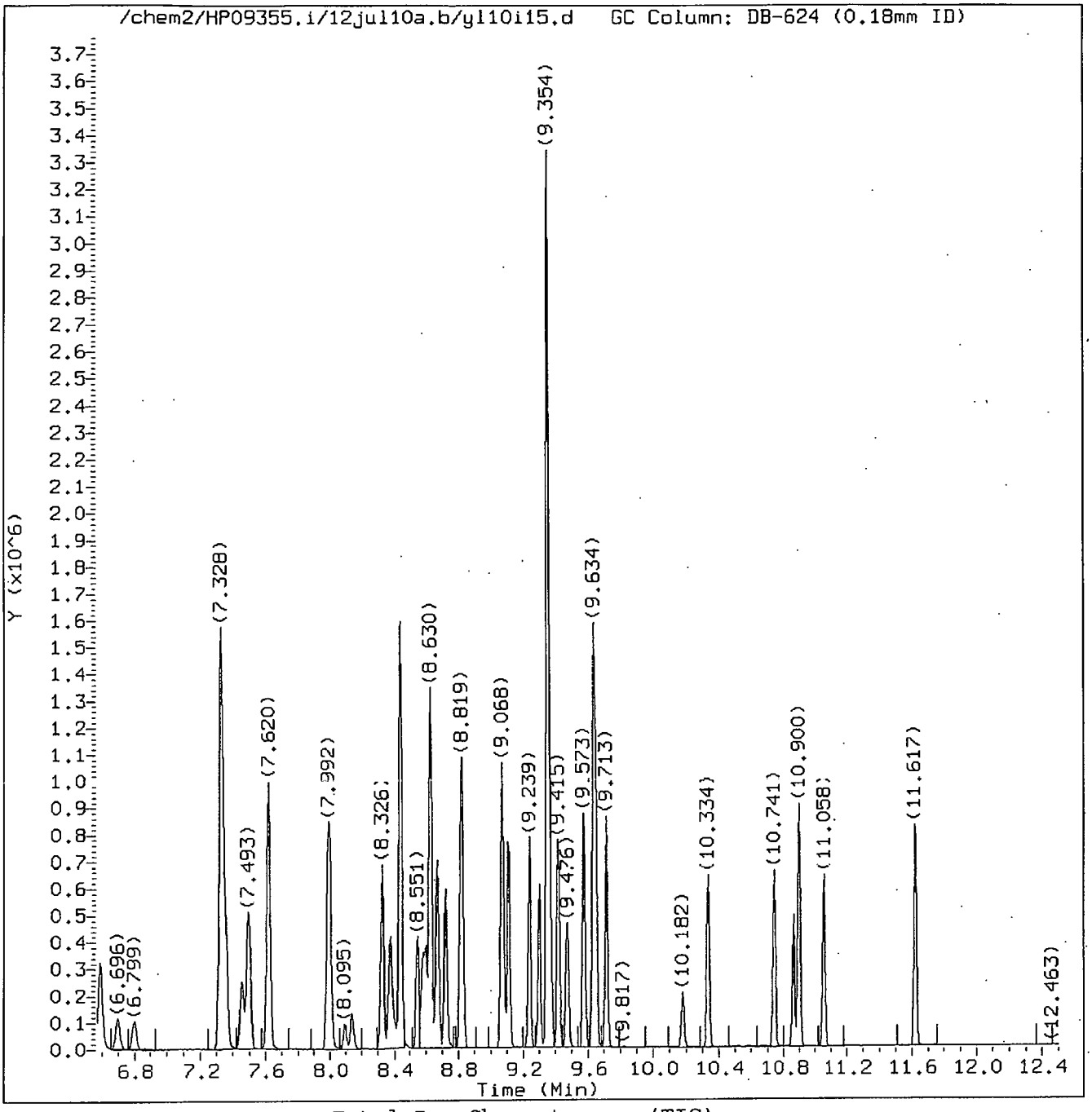
Sublist used: 8260WI

Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010

Lab Sample ID: VSTD010

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.014	85	111415	10.964
3) Chloromethane	(1)	1.050	50	121818M	12.079
4) 1,3-Butadiene	(1)	1.117	39	70525	10.366
5) Vinyl Chloride	(1)	1.123	62	114767M	11.899
7) Bromomethane	(1)	1.275	94	71105	12.239
8) Chloroethane	(1)	1.324	64	61417	12.292
9) Dichlorofluoromethane	(1)	1.427	67	116011	10.146
11) n-Pentane	(1)	1.482	43	115995	10.247
10) Trichlorofluoromethane	(1)	1.488	101	120087	11.362
13) Ethyl Ether	(1)	1.586	59	67676	11.245
14) Freon 123a	(1)	1.604	67	73543	10.738
15) Acrolein	(4)	1.659	56	274353	97.783
16) 1,1-Dichloroethene	(1)	1.732	96	54279	10.091
17) Acetone	(1)	1.744	58	31835	23.073
18) Freon 113	(1)	1.756	101	57385	9.758
21) 2-Propanol	(4)	1.823	45	121070	97.613
20) Methyl Iodide	(1)	1.829	142	107965	10.352
22) Carbon Disulfide	(1)	1.878	76	168992	9.880
24) Allyl Chloride	(1)	1.945	41	105778	10.371
25) Methyl Acetate	(1)	1.957	43	108388	11.249
26) Methylene Chloride	(1)	2.030	84	68200	10.541
28)*t-Butyl Alcohol-d10	(4)	2.042	65	403302	250.000
29) t-Butyl Alcohol	(4)	2.097	59	241074	102.757
30) Acrylonitrile	(1)	2.188	53	58409M	10.963
31) trans-1,2-Dichloroethene	(1)	2.224	96	66760	10.240
32) Methyl Tertiary Butyl Ether	(1)	2.230	73	254343	10.780
33) n-Hexane	(1)	2.443	57	111439	9.946
34) 1,1-Dichloroethane	(1)	2.553	63	132799	10.207
36) di-Isopropyl Ether	(1)	2.626	45	261545	10.544
37) 2-Chloro-1,3-Butadiene	(1)	2.638	53	116125	10.103
39) Ethyl t-Butyl Ether	(1)	2.954	59	257140	10.727
41) 2-Butanone	(1)	3.058	43	170549	21.048
40) cis-1,2-Dichloroethene	(1)	3.064	96	76983	10.382
42) 2,2-Dichloropropane	(1)	3.070	77	101835	9.975
43) Propionitrile	(4)	3.113	54	252665	100.924
46) Methacrylonitrile	(1)	3.259	67	283050	53.751
47) Bromochloromethane	(1)	3.277	128	39941	10.503
48) Tetrahydrofuran	(4)	3.319	71	44223	19.048

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Chloroform	(1)	3.356	83	128123	10.448
51)$Dibromofluoromethane(mz111)	(1)	3.502	111	285614	49.608
52)$Dibromofluoromethane	(1)	3.502	113	277860	49.309
53) 1,1,1-Trichloroethane	(1)	3.532	97	117140	10.369
56) Cyclohexane	(1)	3.587	56	129320	9.988
54) Cyclohexane (mz 84)	(1)	3.593	84	104053	9.880
55) Cyclohexane (mz 69)	(1)	3.593	69	38341	9.843
45) 1,2-Dichloroethene (total)	(1)		96	143743	20.622
57) 1,1-Dichloropropene	(1)	3.678	75	98395	9.967
58) Carbon Tetrachloride	(1)	3.684	117	84241	9.609
59) Isobutyl Alcohol	(4)	3.812	41	184390M	267.181
60)$1,2-Dichloroethane-d4(mz104)	(1)	3.812	104	46327	49.597
62)$1,2-Dichloroethane-d4	(1)	3.812	102	72793	49.683
61)$1,2-Dichloroethane-d4(mz65)	(1)	3.812	65	377406	50.647
63) Benzene	(1)	3.873	78	296044	10.331
64) 1,2-Dichloroethane (mz 98)	(1)	3.885	98	9783	10.436
65) 1,2-Dichloroethane	(1)	3.885	62	114148	10.643
69) t-Amyl Methyl Ether	(1)	4.007	73	238287	10.578
71)*Fluorobenzene	(1)	4.147	96	1218727	50.000
72) n-Heptane	(1)	4.165	43	132490	10.122
73) n-Butanol	(4)	4.475	56	333485	528.661
74) Trichloroethene	(1)	4.506	95	74101	10.168
75) Methylcyclohexane (mz98)	(1)	4.706	98	57544	9.916
76) Methylcyclohexane	(1)	4.706	83	130596	10.019
77) 1,2-Dichloropropane	(1)	4.719	63	82093	10.417
78) Dibromomethane	(1)	4.834	93	52200	10.463
79) 1,4-Dioxane	(4)	4.871	88	44623	267.155
80) Methyl Methacrylate	(1)	4.877	69	90069	10.765
83) Bromodichloromethane	(1)	5.017	83	89633	9.939
85) 2-Nitropropane	(1)	5.242	41	72959	18.806
86) 2-Chloroethyl Vinyl Ether	(1)	5.351	63	69016	10.456
87) cis-1,3-Dichloropropene	(1)	5.485	75	119578	10.084
89) 4-Methyl-2-Pentanone	(1)	5.674	43	311843M	20.440
93)$Toluene-d8	(2)	5.765	98	1197108	49.714
92)$Toluene-d8(mz100)	(2)	5.765	100	781022	48.083
94) Toluene	(2)	5.838	92	189713	10.324
95) trans-1,3-Dichloropropene	(2)	6.087	75	118909	10.095
96) Ethyl Methacrylate	(2)	6.233	69	141628	10.707

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Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,1,2-Trichloroethane	(2)	6.276	97	76453	10.776
98) Tetrachloroethene	(2)	6.428	166	85219	10.075
99) 1,3-Dichloropropane	(2)	6.452	76	136489	10.742
101) 2-Hexanone	(2)	6.586	43	257957	20.724
102) Dibromochloromethane	(2)	6.696	129	70426	9.744
104) 1,2-Dibromoethane	(2)	6.799	107	84248	10.699
106)*Chlorobenzene-d5	(2)	7.328	117	883720	50.000
107) Chlorobenzene	(2)	7.359	112	216257	10.416
108) 1,1,1,2-Tetrachloroethane	(2)	7.456	131	70914	10.052
109) Ethylbenzene	(2)	7.493	91	365372	10.290
110) m+p-Xylene	(2)	7.620	106	286159	20.678
113) o-Xylene	(2)	7.986	106	142936	10.410
114) Styrene	(2)	8.004	104	245365	10.460
115) Bromoform	(2)	8.144	173	55833	9.493
112) Xylene (Total)	(2)		106	429095	31.089
116) Isopropylbenzene	(2)	8.326	105	367484	10.348
118) Cyclohexanone	(4)	8.375	55	199170M	243.310
119)$4-Bromofluorobenzene	(2)	8.436	95	445516	49.699
120)$4-Bromofluorobenzene(mz174)	(2)	8.442	174	388717	49.847
121) Bromobenzene	(3)	8.551	156	98587	10.563
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	131221	10.870
123) 1,2,3-Trichloropropane	(3)	8.600	110	42034	10.908
124) trans-1,4-Dichloro-2-Butene	(3)	8.630	53	217748	51.714
125) n-Propylbenzene	(3)	8.673	91	433615	10.626
126) 2-Chlorotoluene	(3)	8.722	126	89921	10.431
128) 4-Chlorotoluene	(3)	8.813	126	94592	10.526
127) 1,3,5-Trimethylbenzene	(3)	8.819	105	317472	10.447
130) tert-Butylbenzene	(3)	9.068	134	69698	10.123
131) Pentachloroethane	(3)	9.074	167	53741	9.642
132) 1,2,4-Trimethylbenzene	(3)	9.105	105	327181	10.475
133) sec-Butylbenzene	(3)	9.239	105	397504	10.582
134) 1,3-Dichlorobenzene	(3)	9.300	146	186923	10.513
135) p-Isopropyltoluene	(3)	9.354	119	356866	10.542
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	512770	50.000
138) 1,4-Dichlorobenzene	(3)	9.366	146	194097	10.628
139) 1,2,3-Trimethylbenzene	(3)	9.415	105	340413	10.695
141) Benzyl Chloride	(3)	9.476	91	258204	10.134
142) 1,3-Diethylbenzene	(3)	9.573	119	213948	10.496

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Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/y110i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dichlorobenzene	(3)	9.634	146	185016	10.839
143) 1,4-Diethylbenzene	(3)	9.634	119	221126	10.494
145) n-Butylbenzene	(3)	9.646	92	172747	10.431
146) 1,2-Diethylbenzene	(3)	9.713	119	180231	10.562
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	34659	10.250
149) 1,3,5-Trichlorobenzene	(3)	10.334	180	151964	10.750
150) 1,2,4-Trichlorobenzene	(3)	10.741	180	143691	10.845
151) Hexachlorobutadiene	(3)	10.863	225	68283	10.423
152) Naphthalene	(3)	10.900	128	490493	10.848
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	143801	11.059
154) 2-Methylnaphthalene	(3)	11.624	142	284957	10.939

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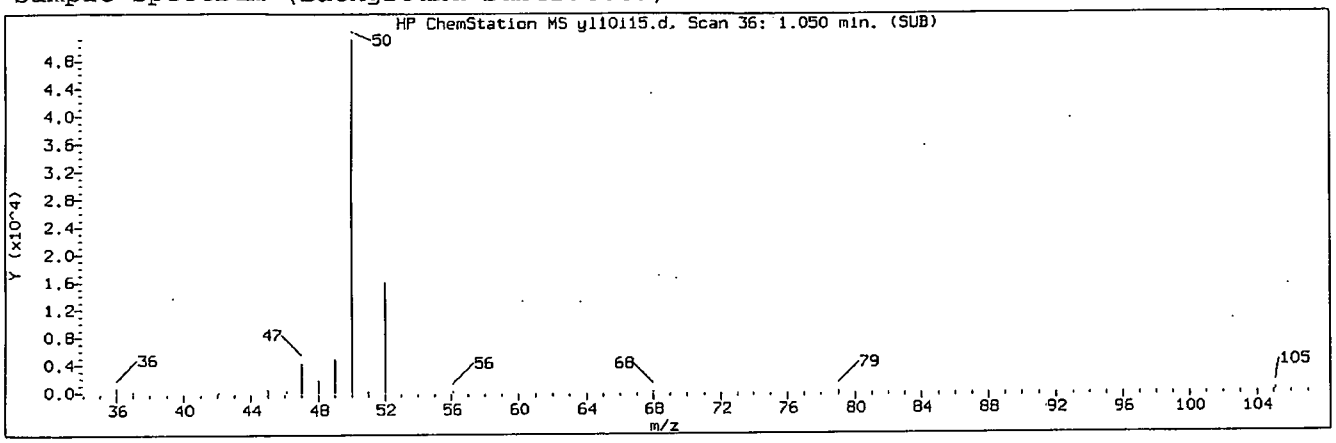
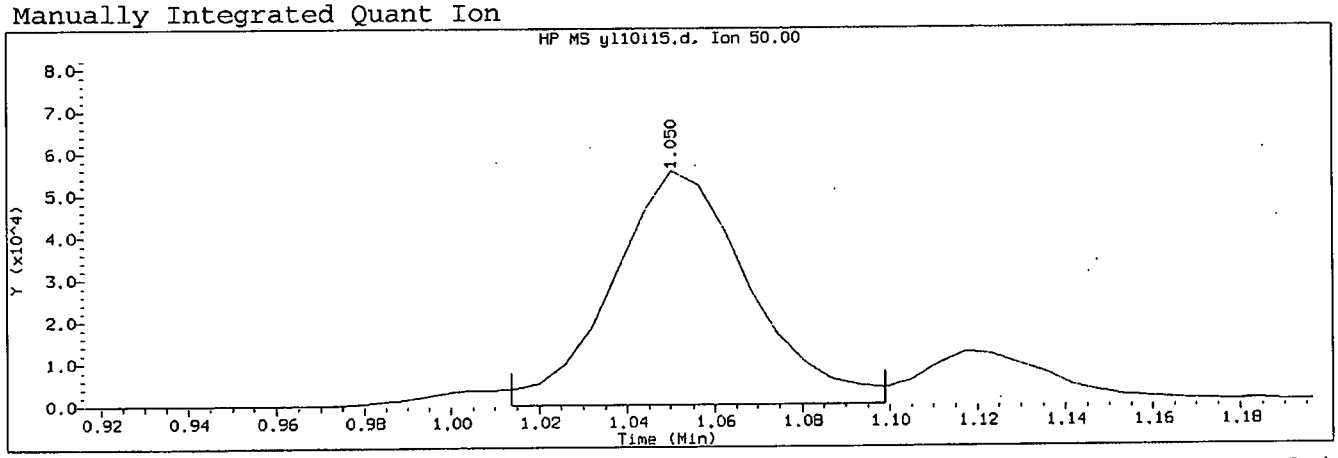
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

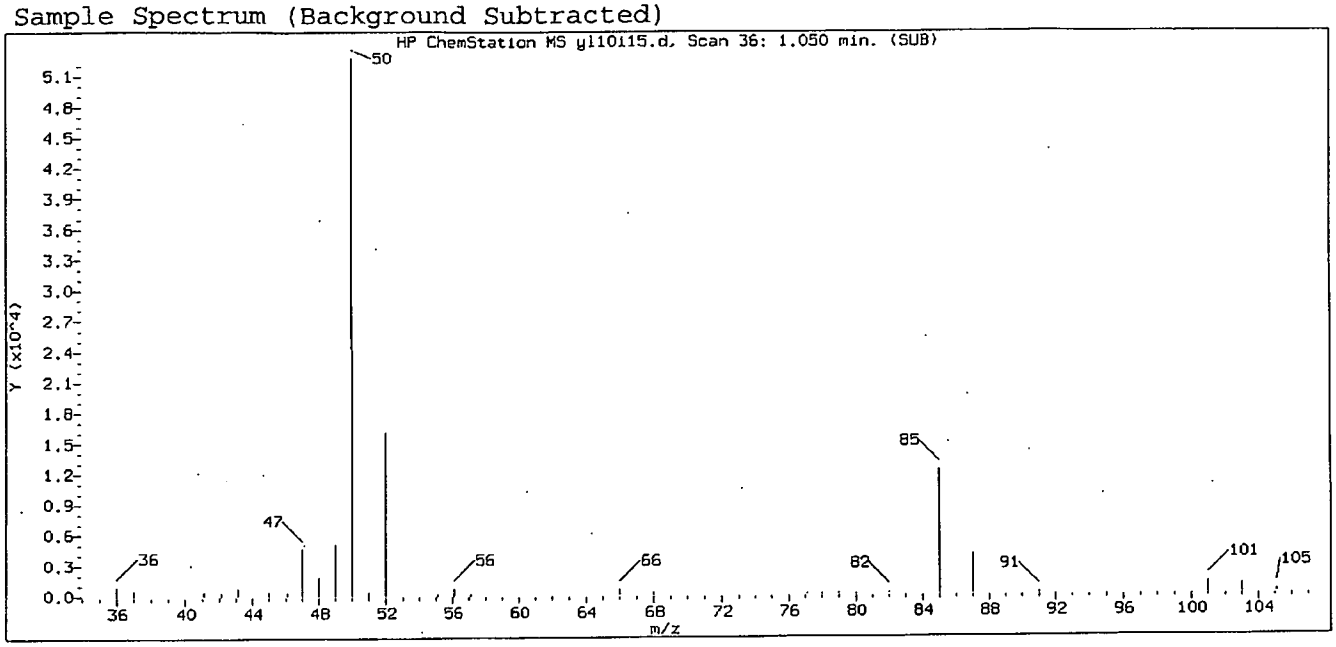
Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 36		
Retention Time (minutes)	: 1.050		
Quant Ion	: 50.00		
Area (flag)	: 121818M		
On-Column Amount (ng)	: 12.0788		
Integration start scan	: 29	Integration stop scan:	43
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

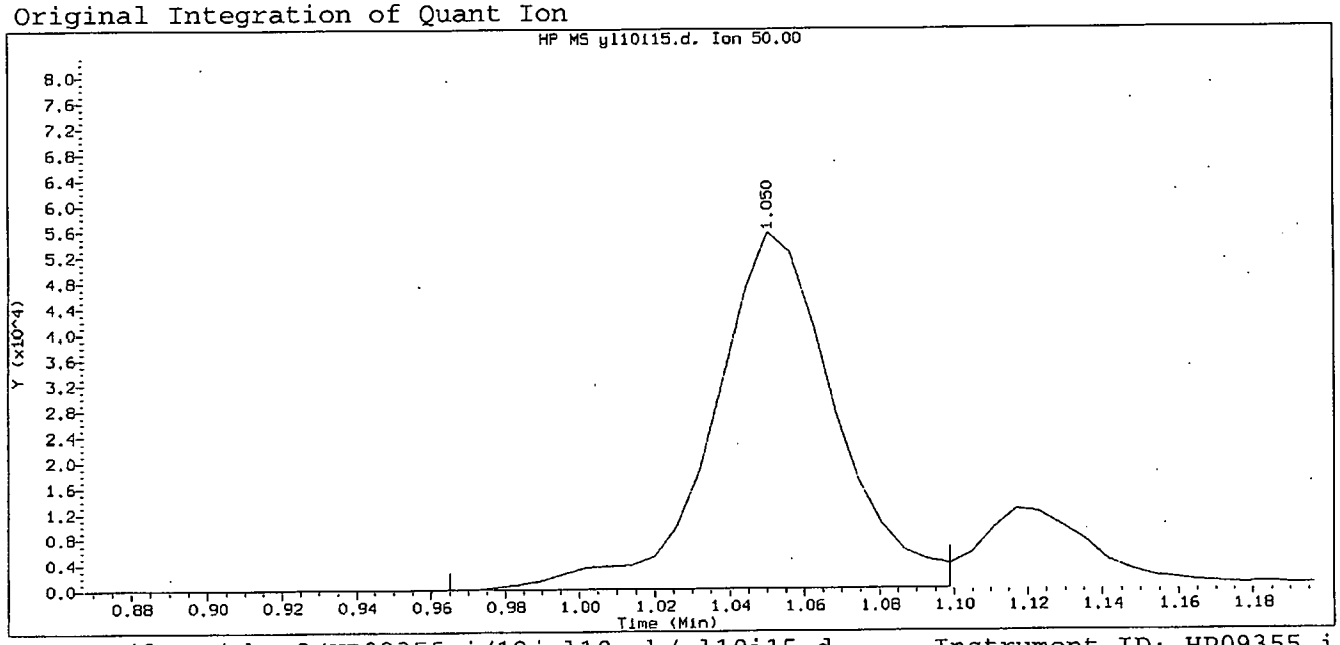
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:44
Date, time and analyst ID of latest file update: 10-Jul-2012 13:44 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 36		
Retention Time (minutes)	: 1.050		
Quant Ion	: 50.00		
Area	: 125414		
On-column Amount (ng)	: 12.2424		
Integration start scan	: 21	Integration stop scan:	43
Y at integration start	: 0	Y at integration end:	0

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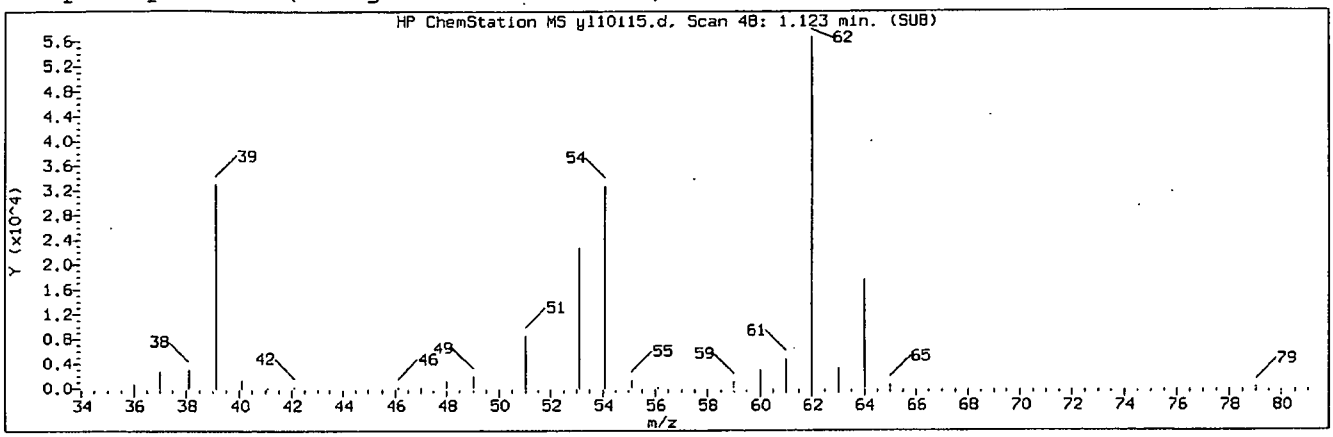
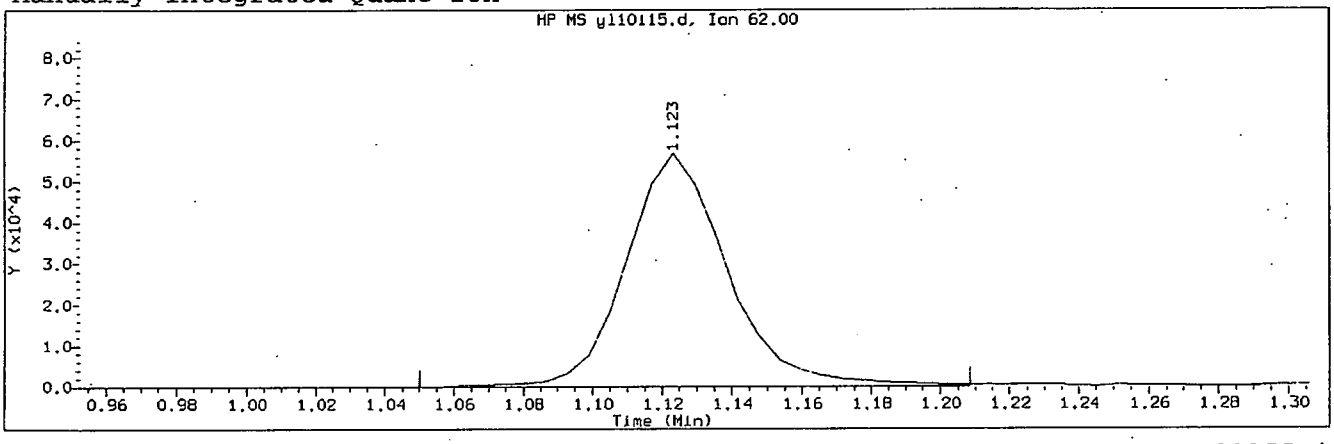
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

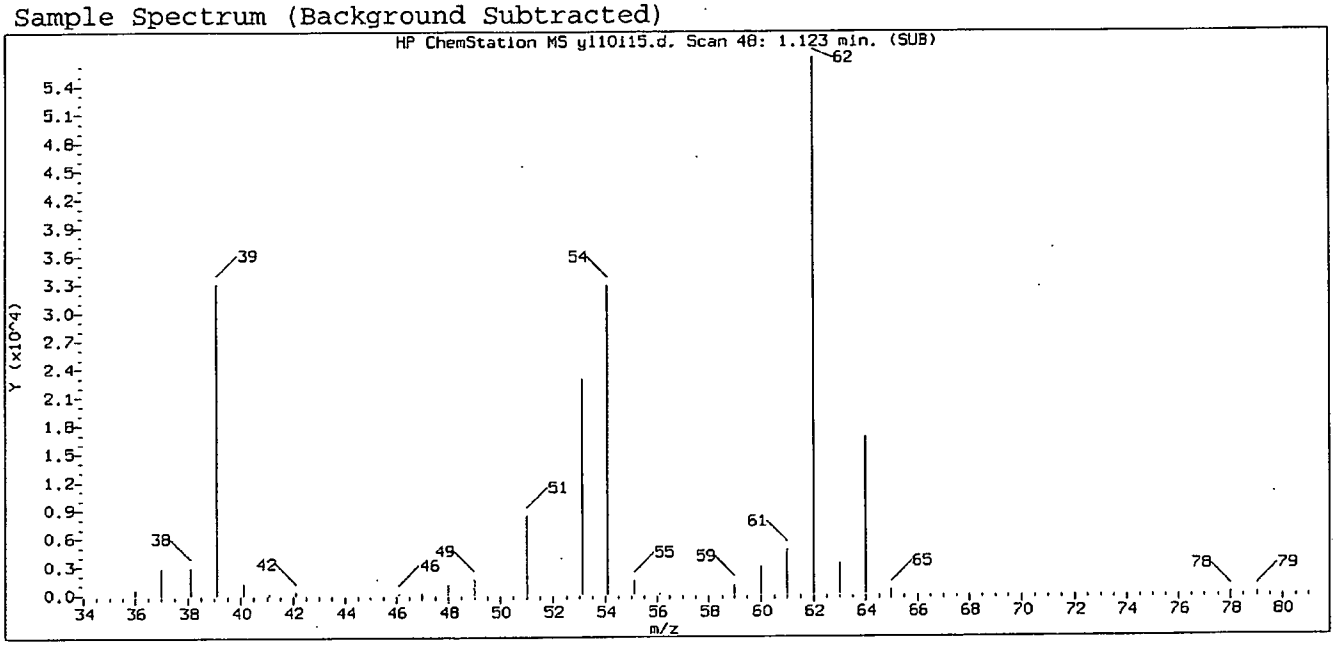
Compound Number	: 5		
Compound Name	: Vinyl Chloride		
Scan Number	: 48		
Retention Time (minutes)	: 1.123		
Quant Ion	: 62.00		
Area (flag)	: 114767M		
On-Column Amount (ng)	: 11.8989		
Integration start scan	: 35	Integration stop scan:	61
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

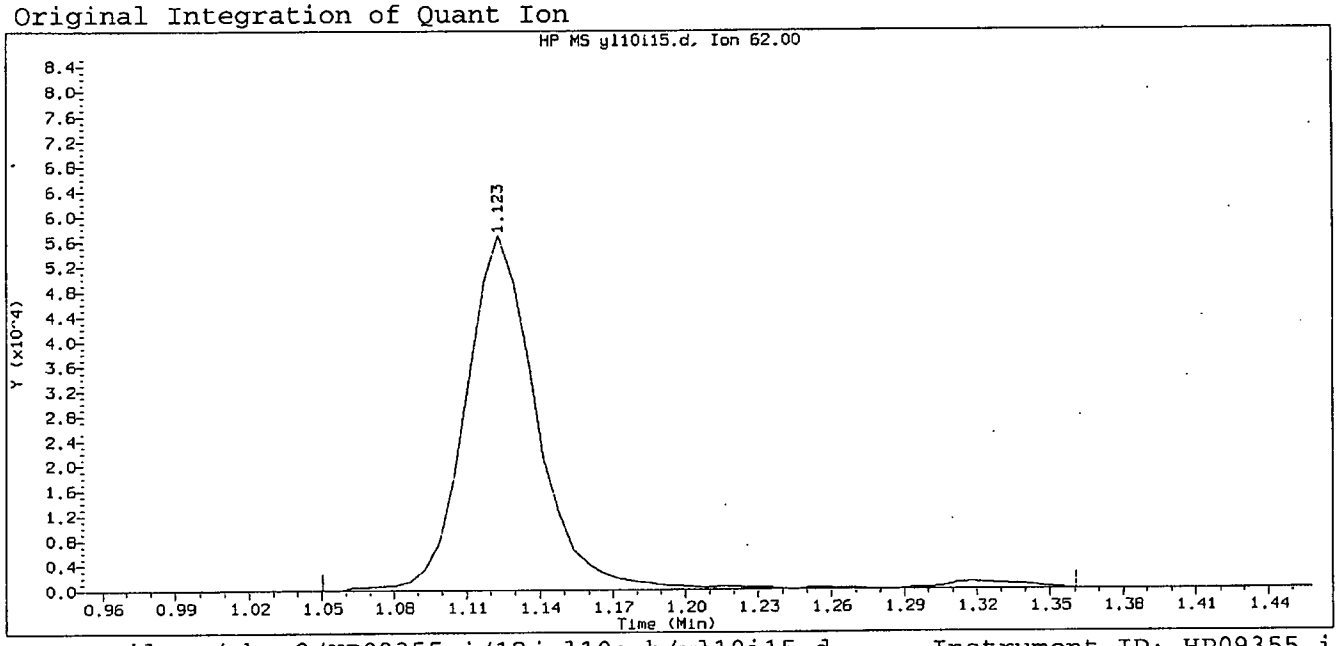
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:44
Date, time and analyst ID of latest file update: 10-Jul-2012 13:44 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 5		
Compound Name	: Vinyl Chloride		
Scan Number	: 48		
Retention Time (minutes)	: 1.123		
Quant Ion	: 62.00		
Area	: 118527		
On-column Amount (ng)	: 12.1937		
Integration start scan	: 35	Integration stop scan:	86
Y at integration start	: 0	Y at integration end:	0

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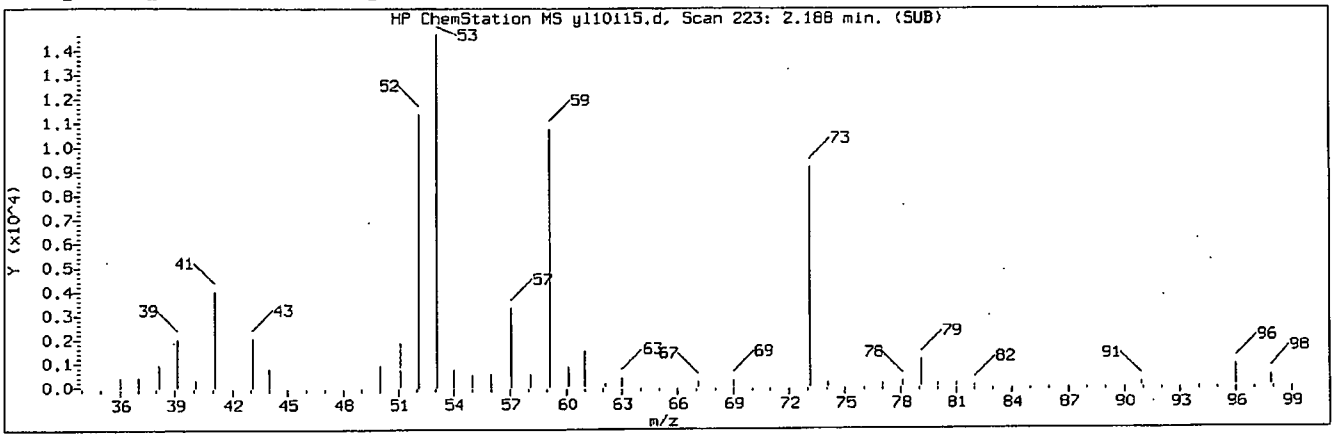
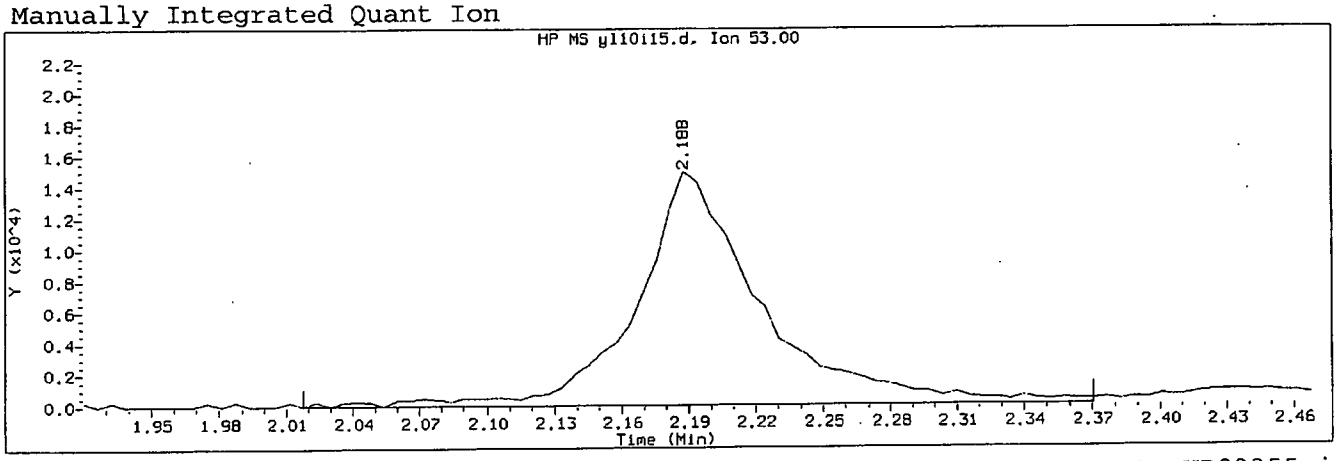
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

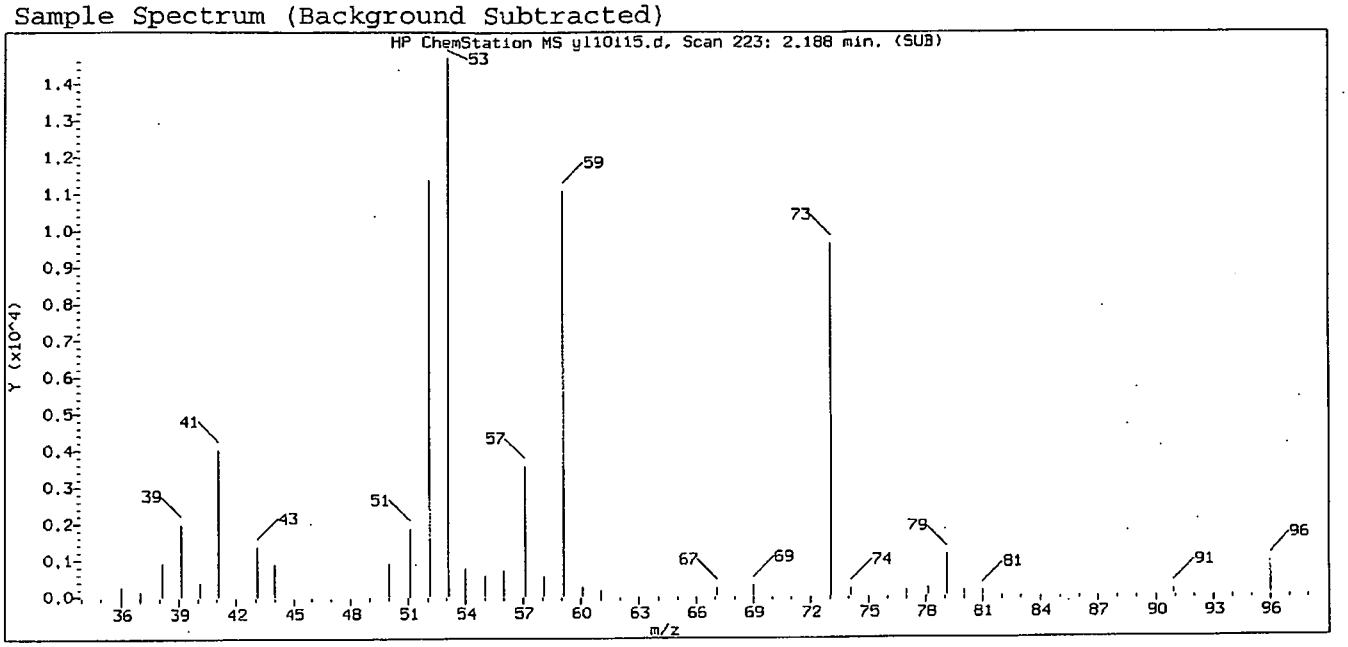
Compound Number	: 30		
Compound Name	: Acrylonitrile		
Scan Number	: 223		
Retention Time (minutes)	: 2.188		
Quant Ion	: 53.00		
Area (flag)	: 58409M		
On-Column Amount (ng)	: 10.9633		
Integration start scan	: 194	Integration stop scan:	252
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

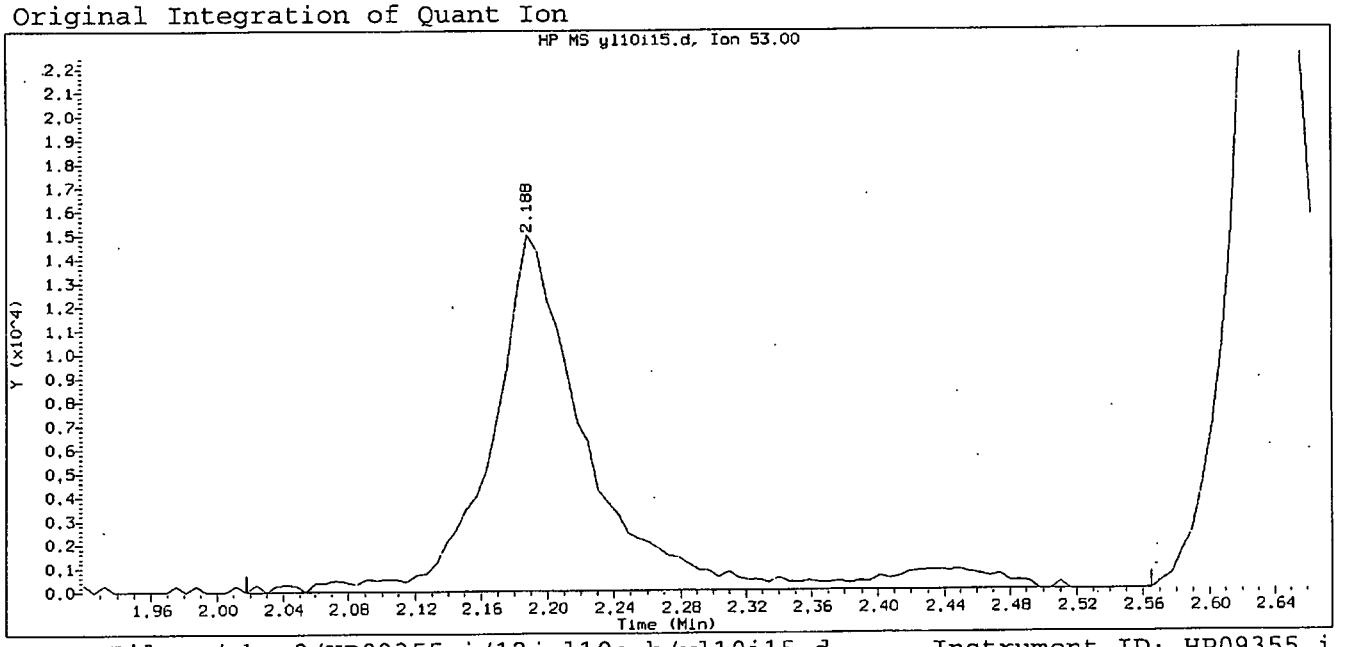
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40 Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:44
Date, time and analyst ID of latest file update: 10-Jul-2012 13:44 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 30		
Compound Name	: Acrylonitrile		
Scan Number	: 223		
Retention Time (minutes)	: 2.188		
Quant Ion	: 53.00		
Area	: 62752		
On-column Amount (ng)	: 11.4032		
Integration start scan	: 194	Integration stop scan:	284
Y at integration start	: 0	Y at integration end:	0

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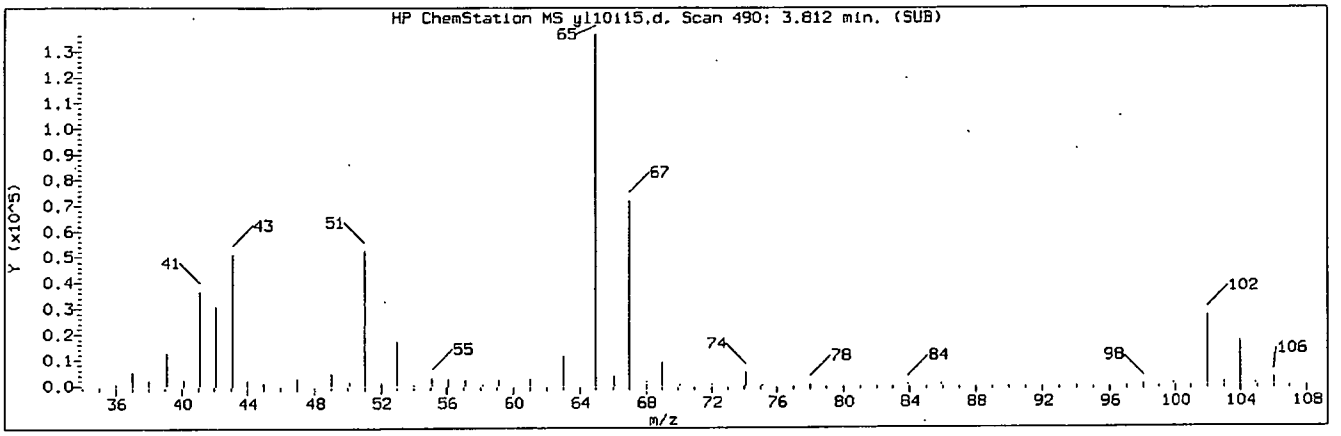
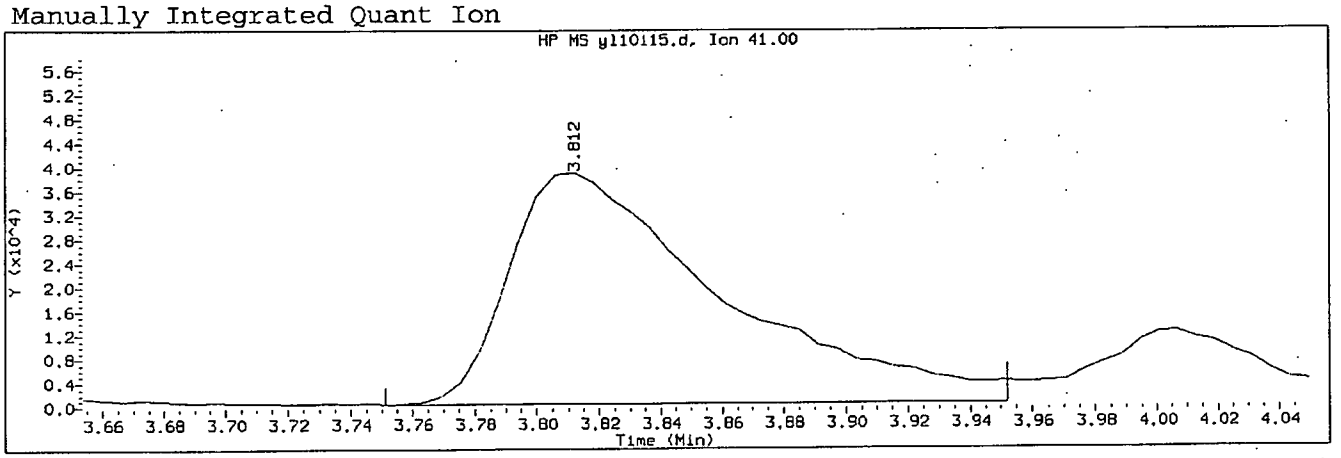
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

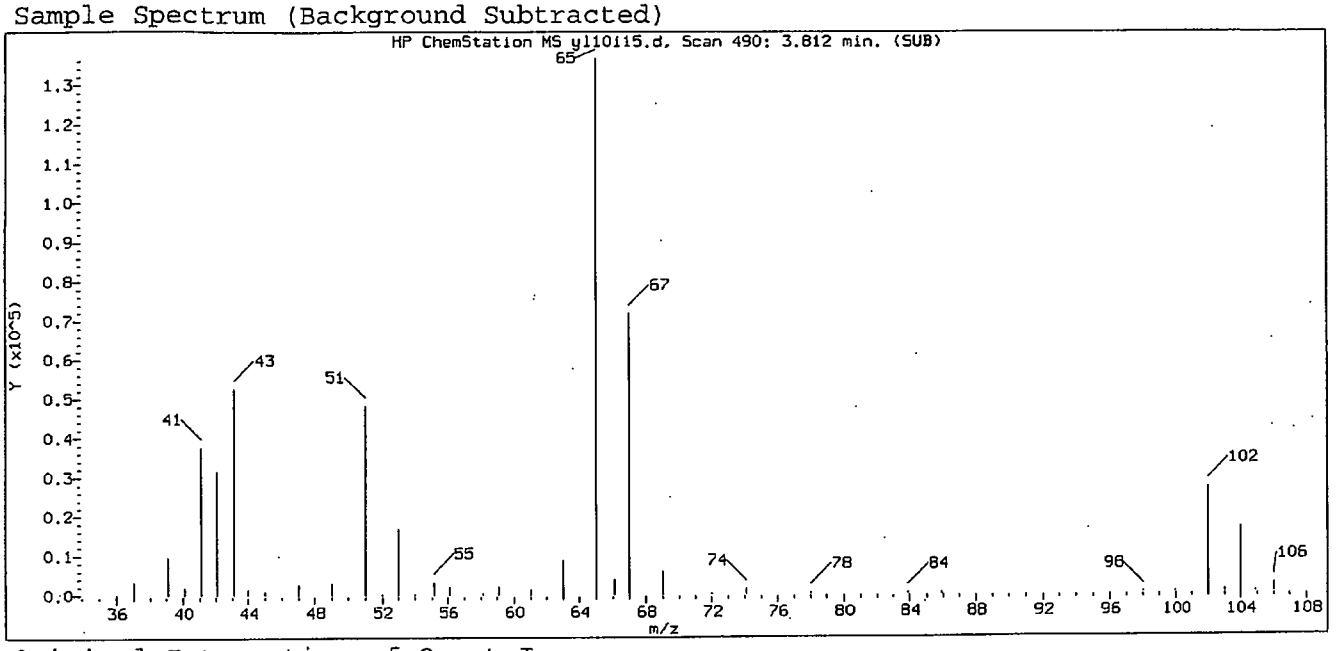
Compound Number	: 59		
Compound Name	: Isobutyl Alcohol		
Scan Number	: 490		
Retention Time (minutes)	: 3.812		
Quant Ion	: 41.00		
Area (flag)	: 184390M		
On-Column Amount (ng)	: 267.1805		
Integration start scan	: 479	Integration stop scan:	512
Y at integration start	: 499	Y at integration end:	499

Reason for manual integration: improper integration

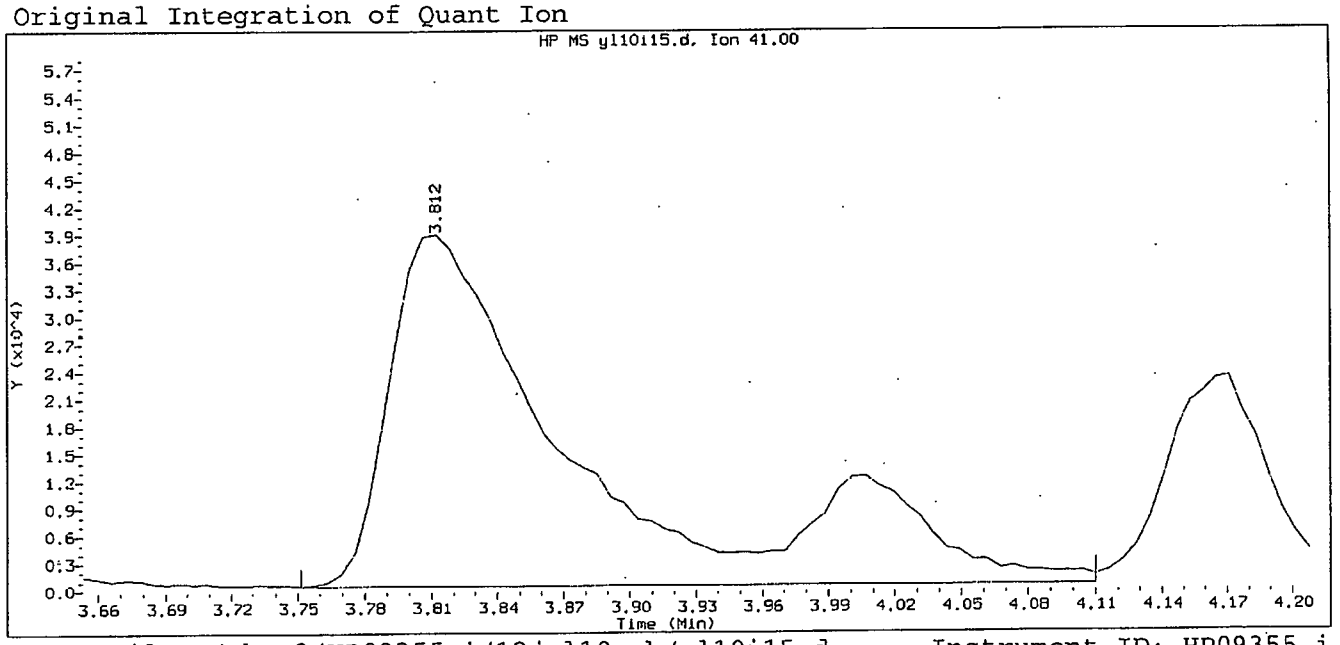
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:44
Date, time and analyst ID of latest file update: 10-Jul-2012 13:44 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 59		
Compound Name	: Isobutyl Alcohol		
Scan Number	: 490		
Retention Time (minutes)	: 3.812		
Quant Ion	: 41.00		
Area	: 232296		
On-column Amount (ng)	: 304.8676		
Integration start scan	: 479	Integration stop scan:	538
Y at integration start	: 499	Y at integration end:	499

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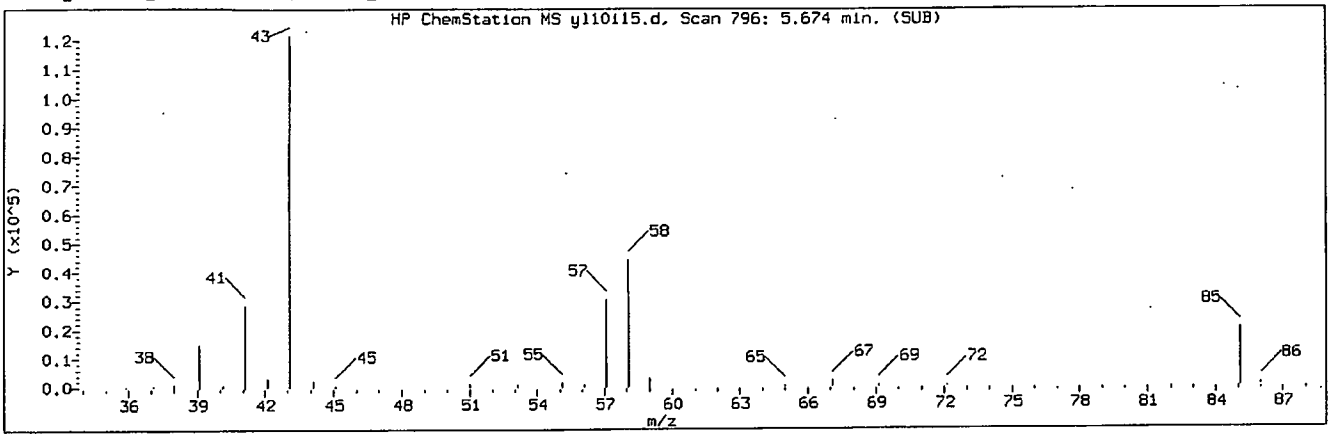
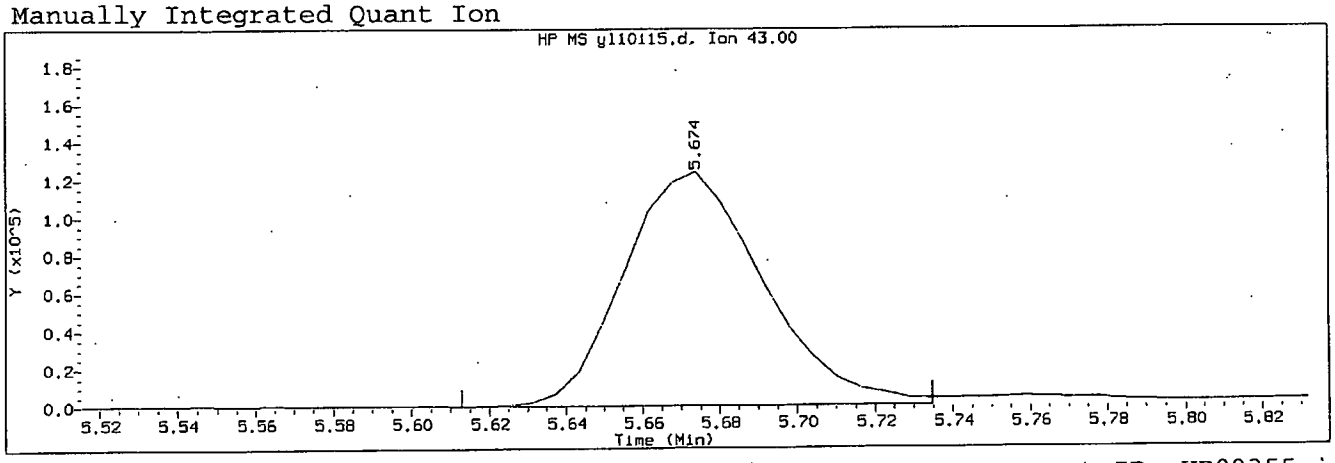
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

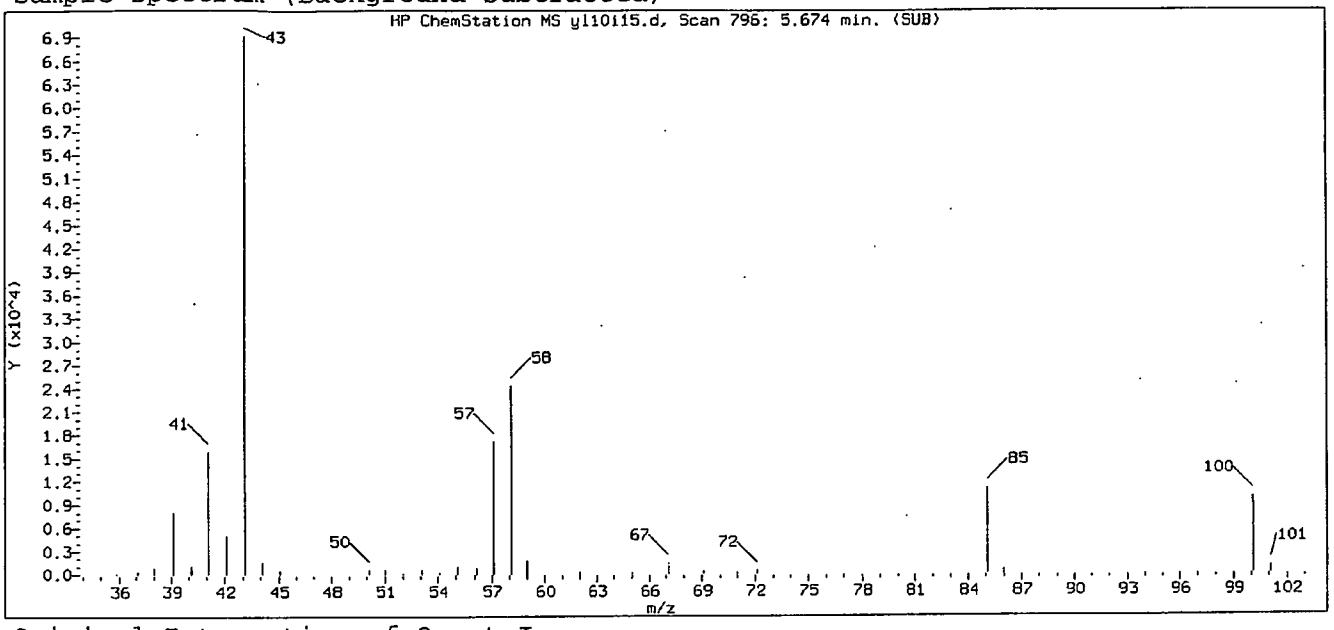
Compound Number	: 89		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 796		
Retention Time (minutes)	: 5.674		
Quant Ion	: 43.00		
Area (flag)	: 311843M		
On-Column Amount (ng)	: 20.4399		
Integration start scan	: 785	Integration stop scan:	805
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

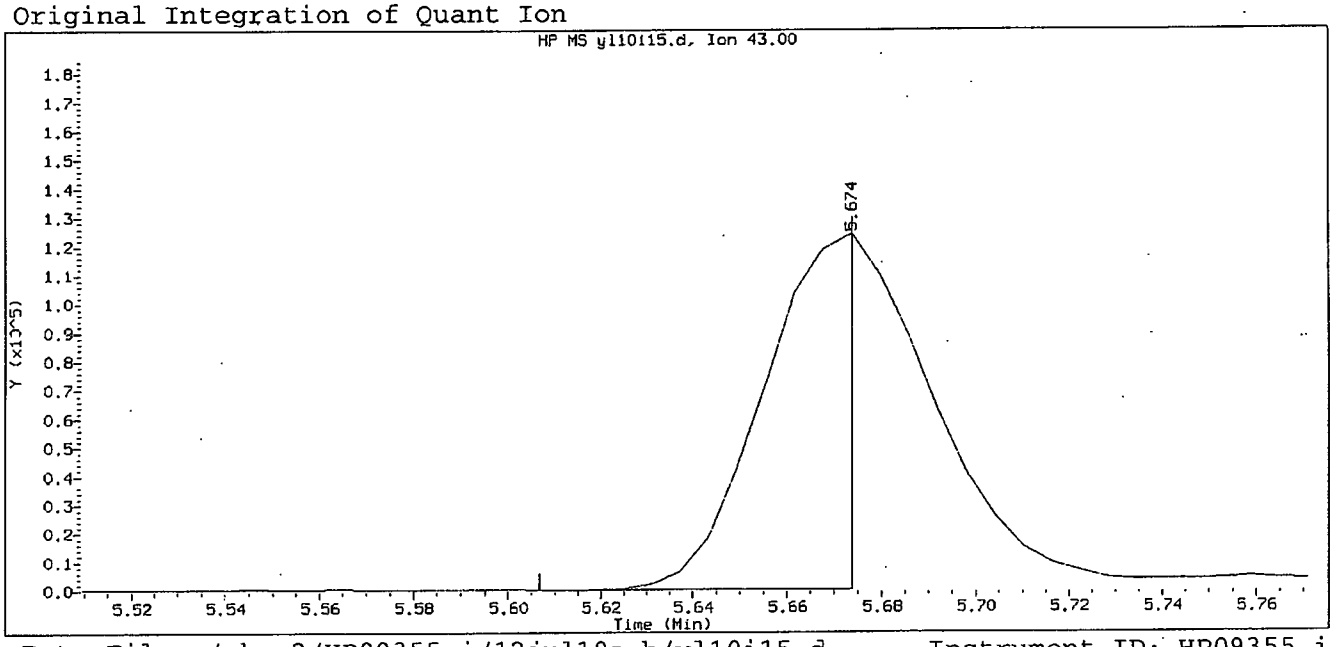
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:44
Date, time and analyst ID of latest file update: 10-Jul-2012 13:44 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 89		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 796		
Retention Time (minutes)	: 5.674		
Quant Ion	: 43.00		
Area	: 154728		
On-column Amount (ng)	: 11.3061		
Integration start scan	: 784	Integration stop scan:	795
Y at integration start	: 262	Y at integration end:	262

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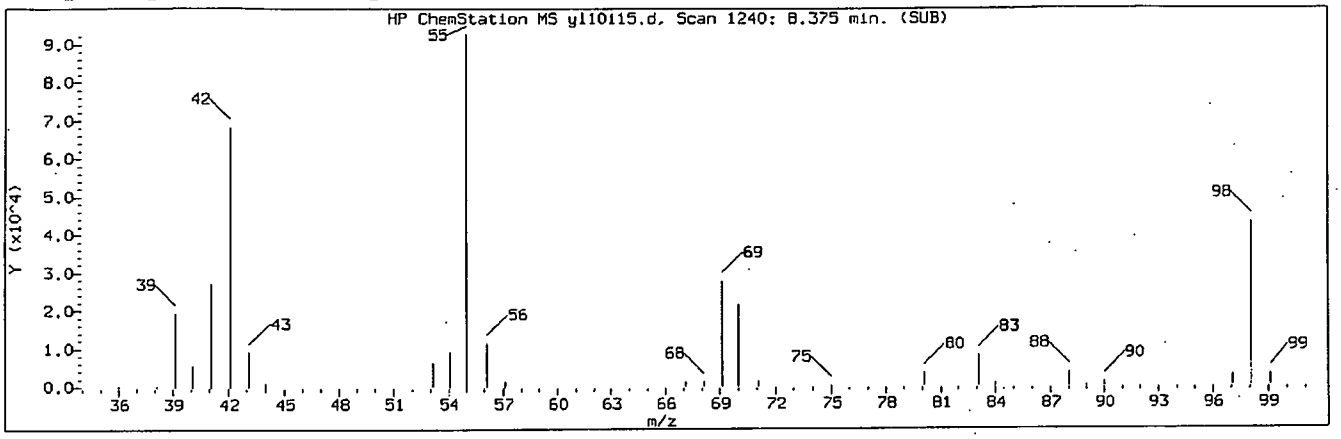
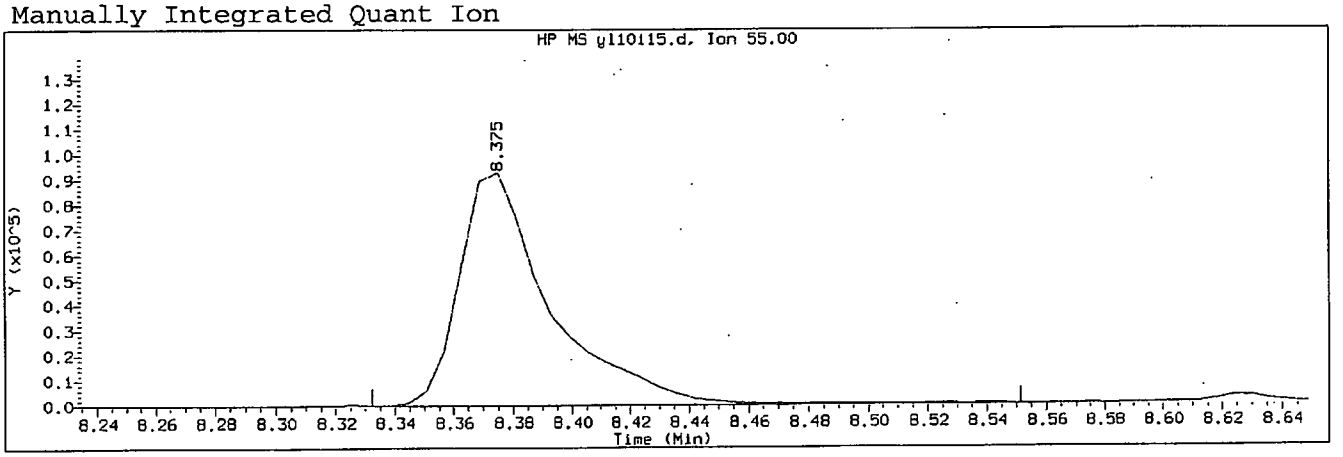
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:58
Date, time and analyst ID of latest file update: 10-Jul-2012 13:58 ads01731

Sample Name: VSTD010 Lab Sample ID: VSTD010

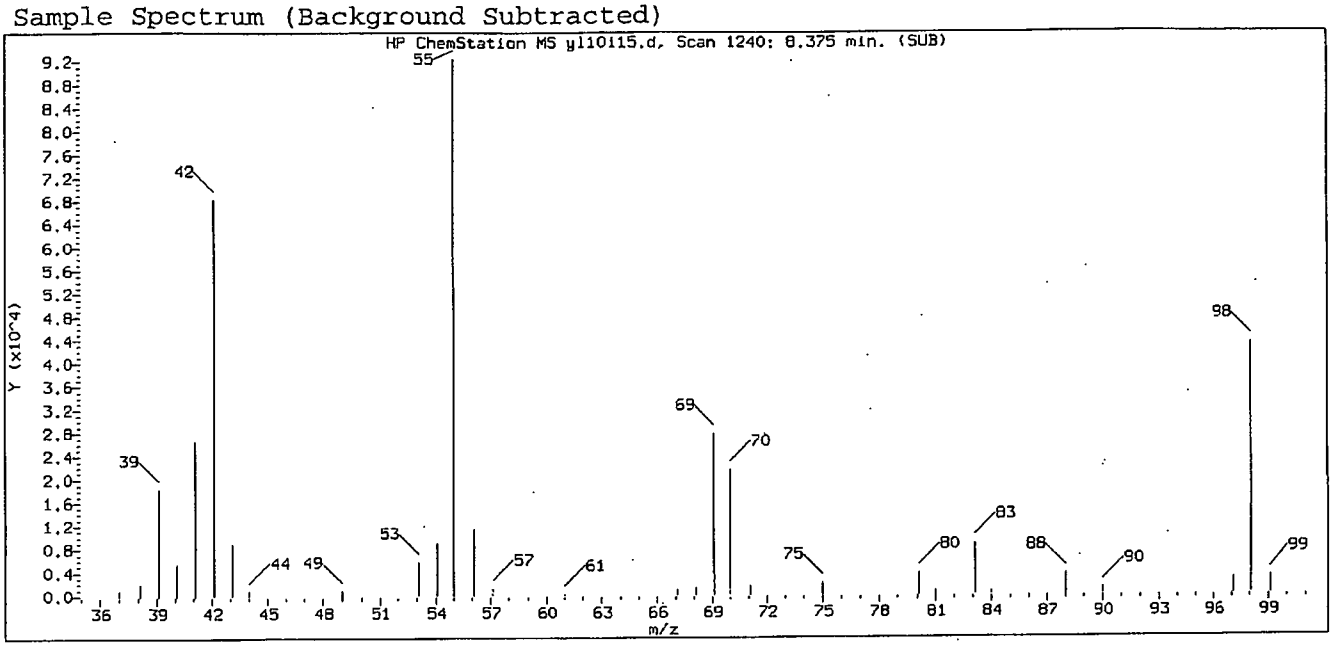
Compound Number : 118
Compound Name : Cyclohexanone
Scan Number : 1240
Retention Time (minutes): 8.375
Quant Ion : 55.00
Area (flag) : 199170M
On-Column Amount (ng) : 243.3101
Integration start scan : 1232 Integration stop scan: 1268
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

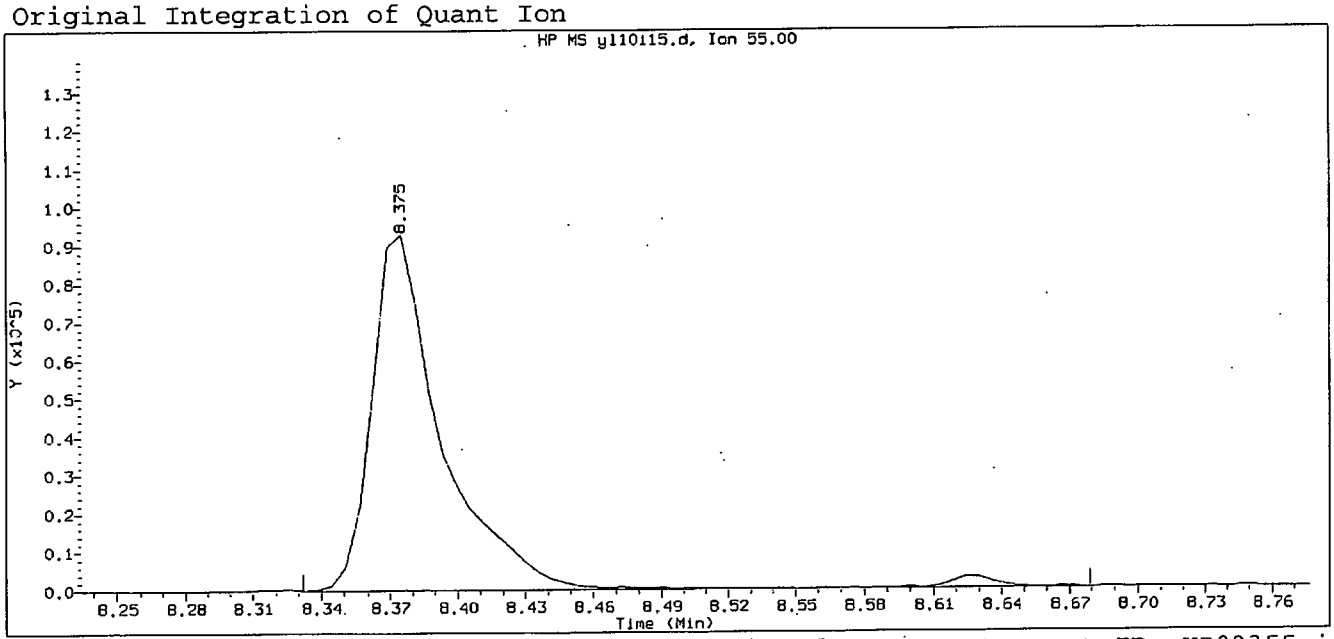
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40 Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i15.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:28 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 13:44
Date, time and analyst ID of latest file update: 10-Jul-2012 13:44 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 118		
Compound Name	: Cyclohexanone		
Scan Number	: 1240		
Retention Time (minutes)	: 8.375		
Quant Ion	: 55.00		
Area	: 204513		
On-column Amount (ng)	: 248.5400		
Integration start scan	: 1232	Integration stop scan:	1289
Y at integration start	: 0	Y at integration end:	0

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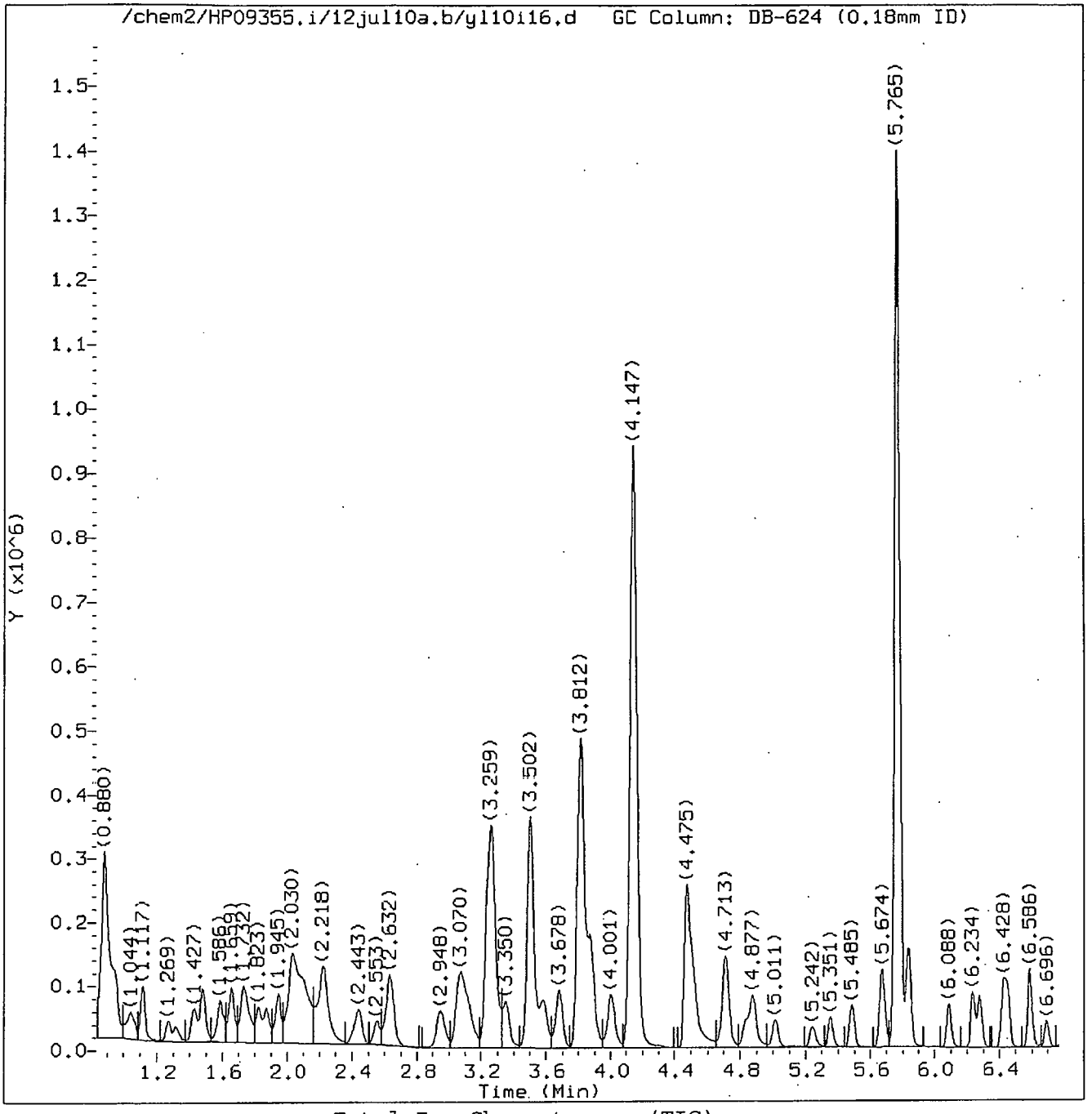
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

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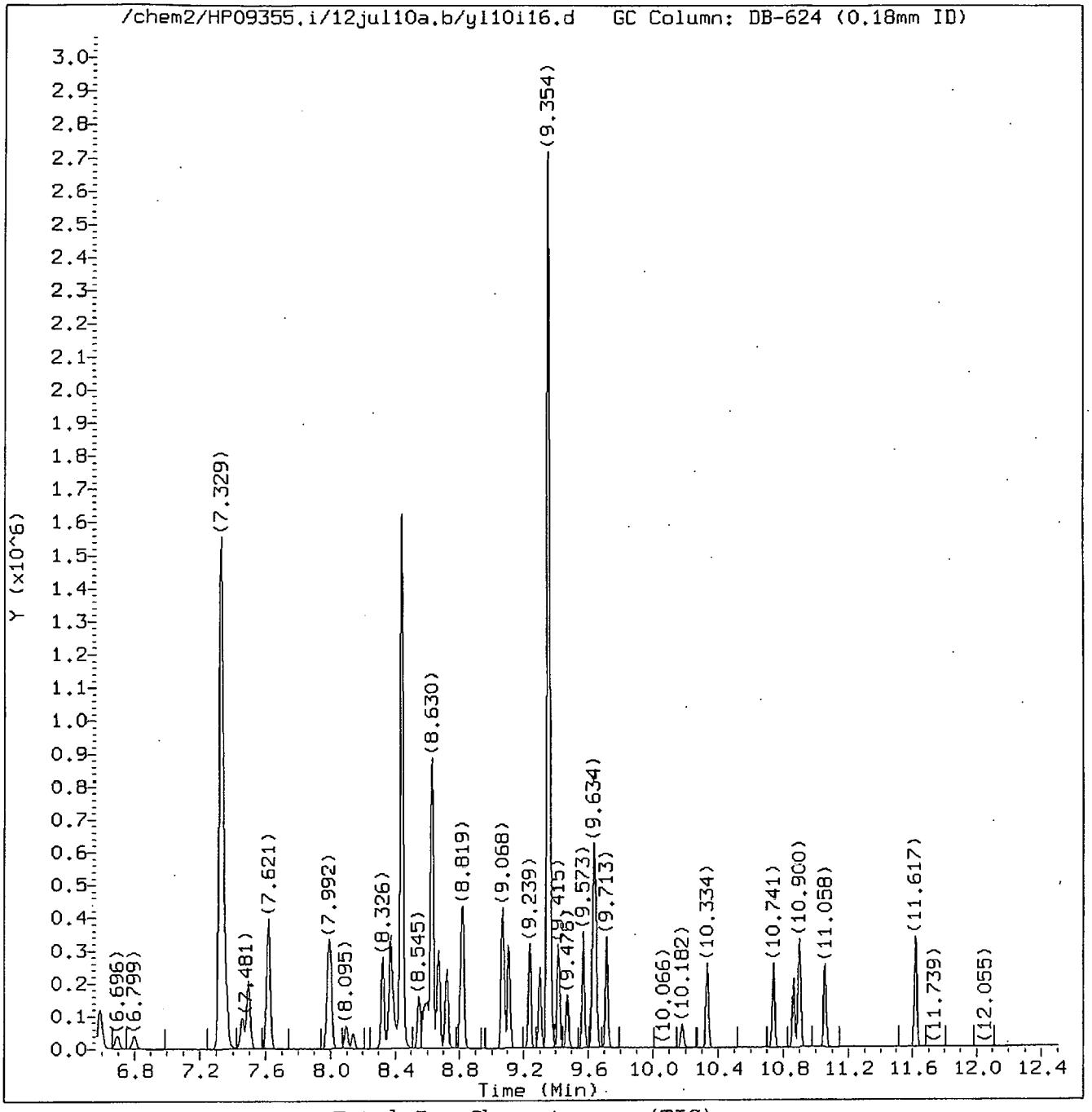
on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.020	85	41147	4.248
3) Chloromethane	(1)	1.044	50	44225	4.351
5) Vinyl Chloride	(1)	1.117	62	40463M	4.230
4) 1,3-Butadiene	(1)	1.117	39	26699	3.754
7) Bromomethane	(1)	1.275	94	25226	4.304
8) Chloroethane	(1)	1.318	64	21799	4.381
9) Dichlorofluoromethane	(1)	1.421	67	51687	4.408
10) Trichlorofluoromethane	(1)	1.476	101	43057	4.225
11) n-Pentane	(1)	1.476	43	49674M	4.357
13) Ethyl Ether	(1)	1.586	59	24948	4.158
14) Freon 123a	(1)	1.598	67	34141	4.830
15) Acrolein	(4)	1.659	56	105309	36.864
16) 1,1-Dichloroethene	(1)	1.732	96	23742	4.395
17) Acetone	(1)	1.750	58	12589	8.994
18) Freon 113	(1)	1.756	101	24880	4.228
20) Methyl Iodide	(1)	1.823	142	43630	4.246
21) 2-Propanol	(4)	1.823	45	88483	70.605
22) Carbon Disulfide	(1)	1.872	76	69827	4.105
24) Allyl Chloride	(1)	1.945	41	43683	4.271
25) Methyl Acetate	(1)	1.951	43	47678	4.802
26) Methylene Chloride	(1)	2.030	84	28211	4.254
28)*t-Butyl Alcohol-d10	(4)	2.042	65	417068	250.000
29) t-Butyl Alcohol	(4)	2.103	59	180437	76.735
30) Acrylonitrile	(1)	2.194	53	25299M	4.645
31) trans-1,2-Dichloroethene	(1)	2.224	96	28814	4.433
32) Methyl Tertiary Butyl Ether	(1)	2.231	73	98595M	4.196
33) n-Hexane	(1)	2.443	57	51821	4.548
34) 1,1-Dichloroethane	(1)	2.553	63	55091	4.304
36) di-Isopropyl Ether	(1)	2.632	45	111561	4.431
37) 2-Chloro-1,3-Butadiene	(1)	2.638	53	48754	4.237
39) Ethyl t-Butyl Ether	(1)	2.948	59	100476	4.217
41) 2-Butanone	(1)	3.052	43	65465	8.139
40) cis-1,2-Dichloroethene	(1)	3.064	96	30824	4.216
42) 2,2-Dichloropropane	(1)	3.070	77	42781	4.276
43) Propionitrile	(4)	3.119	54	186024	73.093
46) Methacrylonitrile	(1)	3.259	67	206535	39.706
47) Bromochloromethane	(1)	3.277	128	15612	4.124
48) Tetrahydrofuran	(4)	3.319	71	16980	7.212

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Chloroform	(1)	3.356	83	51487	4.181
51)$Dibromofluoromethane(mz111)	(1)	3.502	111	284005	49.917
52)$Dibromofluoromethane	(1)	3.502	113	280094	50.257
53) 1,1,1-Trichloroethane	(1)	3.526	97	52683	4.596
56) Cyclohexane	(1)	3.581	56	57819	4.420
54) Cyclohexane (mz 84)	(1)	3.587	84	45708	4.317
55) Cyclohexane (mz 69)	(1)	3.593	69	16478	4.227
45) 1,2-Dichloroethene (total)	(1)		96	59638	8.649
57) 1,1-Dichloropropene	(1)	3.678	75	42200	4.357
58) Carbon Tetrachloride	(1)	3.684	117	34441	4.081
59) Isobutyl Alcohol	(4)	3.806	41	137189M	193.479
61)$1,2-Dichloroethane-d4(mz65)	(1)	3.812	65	373077	50.515
60)$1,2-Dichloroethane-d4(mz104)	(1)	3.812	104	46475	50.225
62)$1,2-Dichloroethane-d4	(1)	3.812	102	73365	50.345
63) Benzene	(1)	3.867	78	121452	4.274
65) 1,2-Dichloroethane	(1)	3.879	62	43846	4.117
64) 1,2-Dichloroethane (mz 98)	(1)	3.891	98	3711	4.131
69) t-Amyl Methyl Ether	(1)	4.007	73	91464	4.121
71)*Fluorobenzene	(1)	4.147	96	1205608	50.000
72) n-Heptane	(1)	4.165	43	66791	4.921
73) n-Butanol	(4)	4.469	56	237111	369.093
74) Trichloroethene	(1)	4.512	95	30937	4.279
75) Methylcyclohexane (mz98)	(1)	4.707	98	23345	4.055
76) Methylcyclohexane	(1)	4.707	83	52394	4.053
77) 1,2-Dichloropropane	(1)	4.725	63	32383	4.176
78) Dibromomethane	(1)	4.834	93	20514	4.189
79) 1,4-Dioxane	(4)	4.865	88	31733	186.240
80) Methyl Methacrylate	(1)	4.877	69	33282	4.018
83) Bromodichloromethane	(1)	5.011	83	34236	3.953
85) 2-Nitropropane	(1)	5.236	41	27638	7.323
86) 2-Chloroethyl Vinyl Ether	(1)	5.351	63	25340	3.900
87) cis-1,3-Dichloropropene	(1)	5.485	75	45618	4.020
89) 4-Methyl-2-Pentanone	(1)	5.674	43	119243	7.917
93)$Toluene-d8	(2)	5.765	98	1189301	49.964
92)$Toluene-d8(mz100)	(2)	5.765	100	776866	48.864
94) Toluene	(2)	5.838	92	78207	4.302
95) trans-1,3-Dichloropropene	(2)	6.088	75	42726	3.830
96) Ethyl Methacrylate	(2)	6.234	69	51702	3.959

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,1,2-Trichloroethane	(2)	6.276	97	28834	4.153
98) Tetrachloroethene	(2)	6.422	166	36351	4.354
99) 1,3-Dichloropropane	(2)	6.453	76	51751	4.162
101) 2-Hexanone	(2)	6.586	43	98196	7.978
102) Dibromochloromethane	(2)	6.696	129	25057	3.672
104) 1,2-Dibromoethane	(2)	6.799	107	30486	3.993
106)*Chlorobenzene-d5	(2)	7.329	117	874337	50.000
107) Chlorobenzene	(2)	7.359	112	85574	4.176
108) 1,1,1,2-Tetrachloroethane	(2)	7.456	131	26517	3.916
109) Ethylbenzene	(2)	7.493	91	149341	4.207
110) m+p-Xylene	(2)	7.621	106	116017	8.391
113) o-Xylene	(2)	7.986	106	56197	4.113
114) Styrene	(2)	7.998	104	94850	4.072
115) Bromoform	(2)	8.144	173	18630	3.312
112) Xylene (Total)	(2)		106	172214	12.504
116) Isopropylbenzene	(2)	8.326	105	151545	4.258
118) Cyclohexanone	(4)	8.375	55	162086	194.663
119)$4-Bromofluorobenzene	(2)	8.436	95	448284	50.459
120)$4-Bromofluorobenzene(mz174)	(2)	8.442	174	388014	50.270
121) Bromobenzene	(3)	8.551	156	39066	4.187
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	49069	4.106
123) 1,2,3-Trichloropropane	(3)	8.600	110	16290	4.221
124) trans-1,4-Dichloro-2-Butene	(3)	8.630	53	153114	37.226
125) n-Propylbenzene	(3)	8.673	91	179177	4.355
126) 2-Chlorotoluene	(3)	8.722	126	35376	4.119
128) 4-Chlorotoluene	(3)	8.813	126	37681	4.193
127) 1,3,5-Trimethylbenzene	(3)	8.819	105	128250	4.215
130) tert-Butylbenzene	(3)	9.068	134	28941	4.201
131) Pentachloroethane	(3)	9.068	167	19714	3.636
132) 1,2,4-Trimethylbenzene	(3)	9.105	105	133114	4.250
133) sec-Butylbenzene	(3)	9.239	105	164353	4.342
134) 1,3-Dichlorobenzene	(3)	9.300	146	75927	4.256
135) p-Isopropyltoluene	(3)	9.354	119	145077	4.269
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	507838	50.000
138) 1,4-Dichlorobenzene	(3)	9.367	146	78041	4.259
139) 1,2,3-Trimethylbenzene	(3)	9.415	105	133394	4.191
141) Benzyl Chloride	(3)	9.476	91	88841	3.593
142) 1,3-Diethylbenzene	(3)	9.573	119	83030	4.094

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dichlorobenzene	(3)	9.634	146	72268	4.226
143) 1,4-Diethylbenzene	(3)	9.634	119	87199	4.148
145) n-Butylbenzene	(3)	9.646	92	70742	4.258
146) 1,2-Diethylbenzene	(3)	9.713	119	71238	4.178
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	12416	3.753
149) 1,3,5-Trichlorobenzene	(3)	10.334	180	59866	4.227
150) 1,2,4-Trichlorobenzene	(3)	10.741	180	57223	4.296
151) Hexachlorobutadiene	(3)	10.863	225	29652	4.464
152) Naphthalene	(3)	10.900	128	184912	4.103
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	57636	4.389
154) 2-Methylnaphthalene	(3)	11.617	142	116291	4.414

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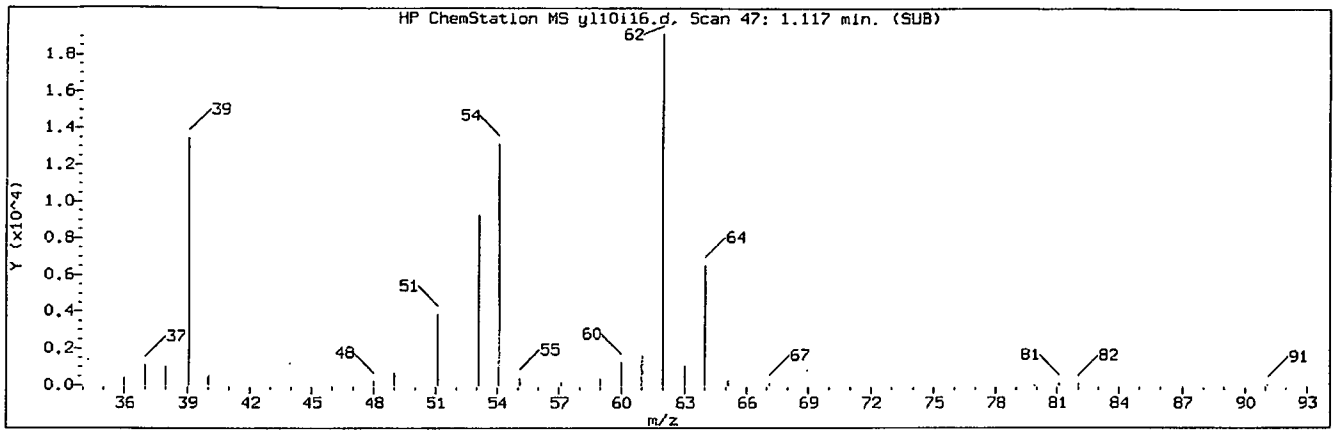
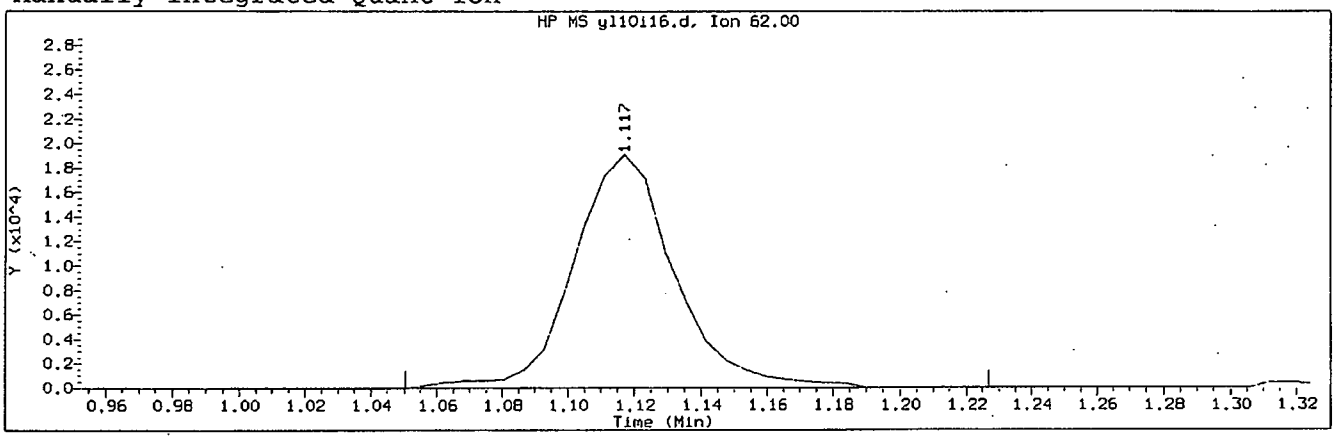
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

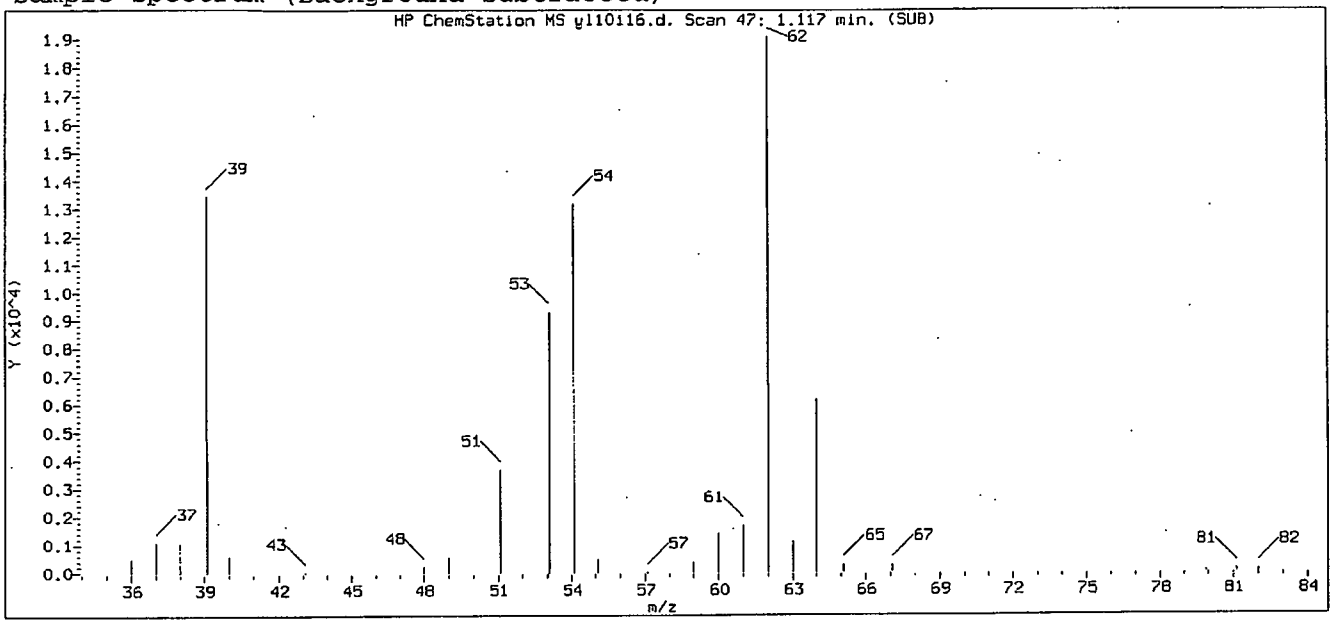
Compound Number	: 5		
Compound Name	: Vinyl Chloride		
Scan Number	: 47		
Retention Time (minutes)	: 1.117		
Quant Ion	: 62.00		
Area (flag)	: 40463M		
On-Column Amount (ng)	: 4.2299		
Integration start scan	: 35	Integration stop scan:	64
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

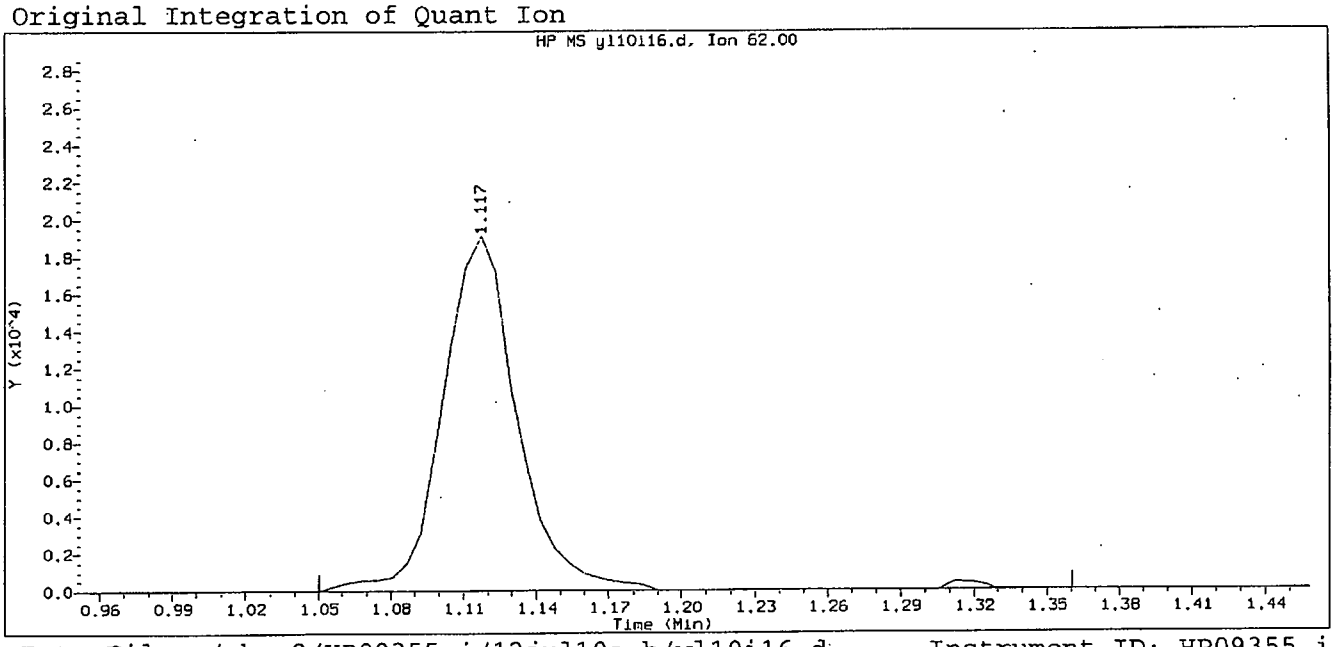
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:05
Date, time and analyst ID of latest file update: 10-Jul-2012 14:05 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 5		
Compound Name	: Vinyl Chloride		
Scan Number	: 47		
Retention Time (minutes)	: 1.117		
Quant Ion	: 62.00		
Area	: 40857		
On-column Amount (ng)	: 4.2324		
Integration start scan	: 35	Integration stop scan:	86
Y at integration start	: 0	Y at integration end:	0

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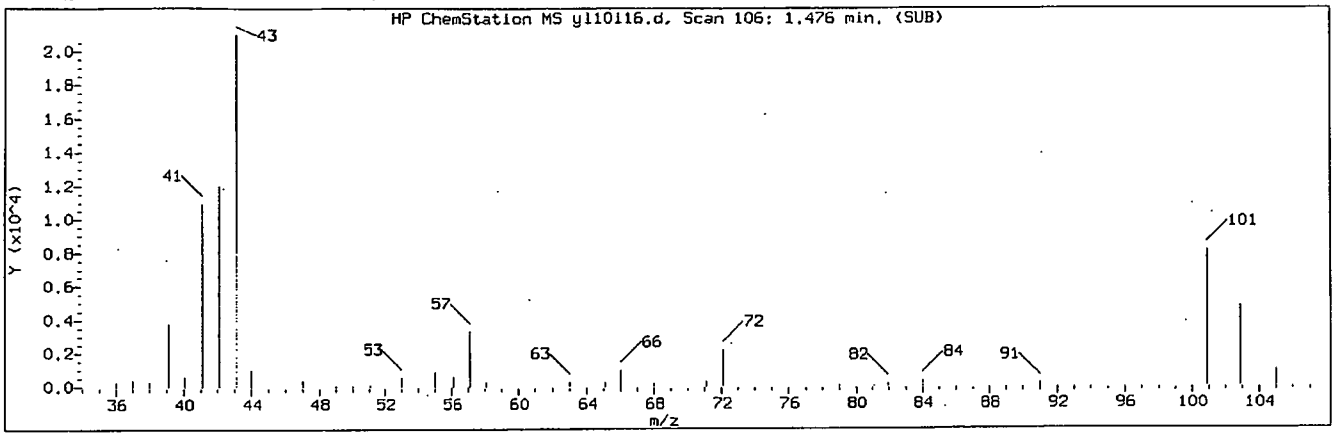
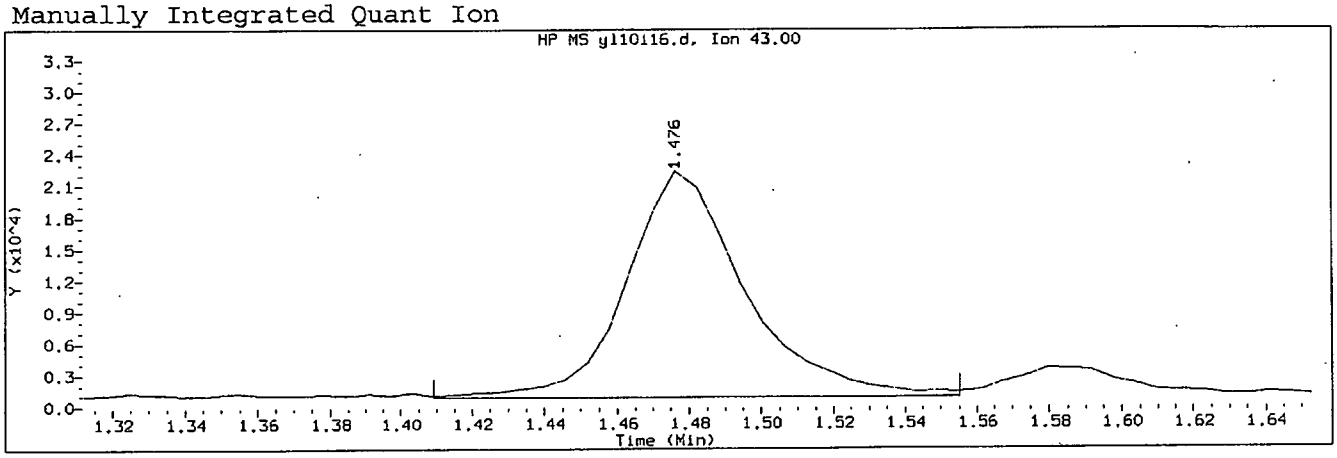
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

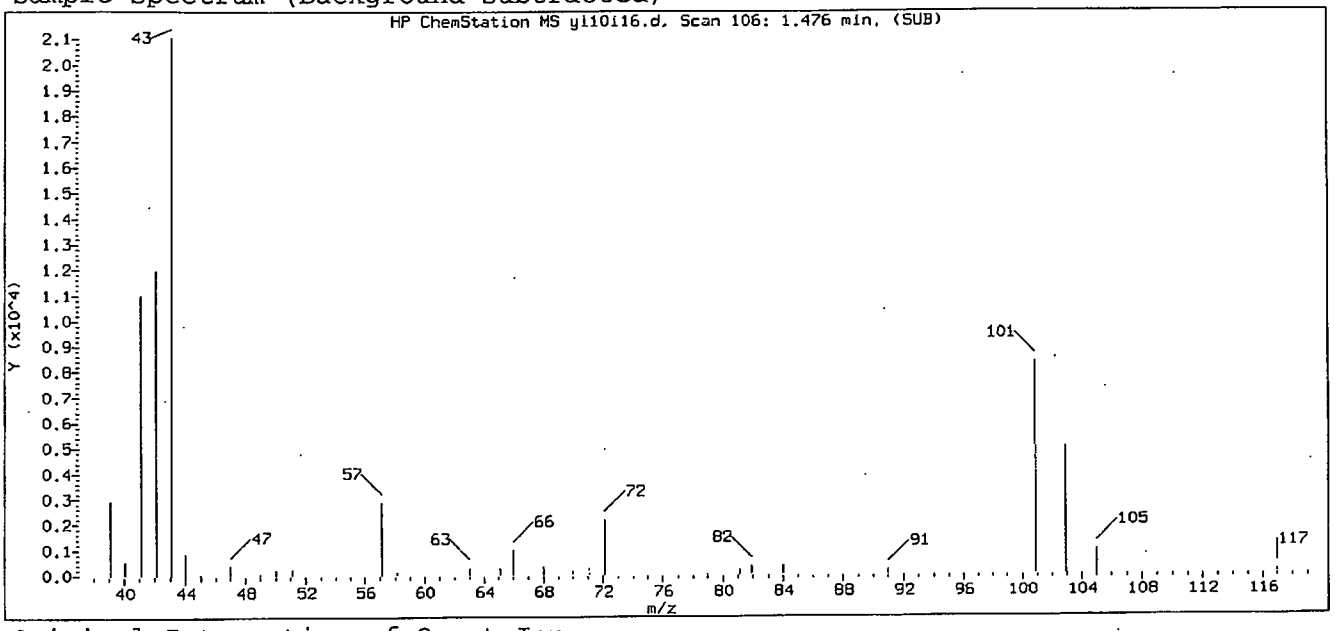
Compound Number	: 11		
Compound Name	: n-Pentane		
Scan Number	: 106		
Retention Time (minutes)	: 1.476		
Quant Ion	: 43.00		
Area (flag)	: 49674M		
On-Column Amount (ng)	: 4.3569		
Integration start scan	: 94	Integration stop scan:	118
Y at integration start	: 852	Y at integration end:	852

Reason for manual integration: improper integration

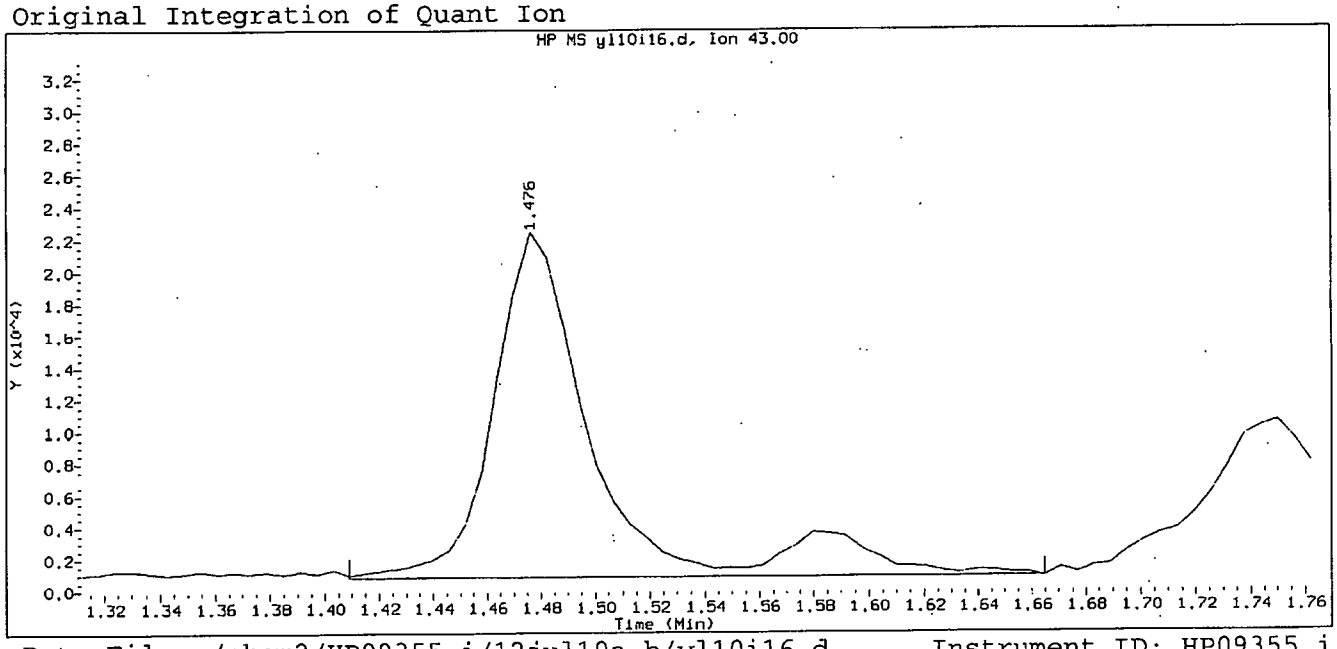
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40 Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:05
Date, time and analyst ID of latest file update: 10-Jul-2012 14:05 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 11		
Compound Name	: n-Pentane		
Scan Number	: 106		
Retention Time (minutes)	: 1.476		
Quant Ion	: 43.00		
Area	: 56338		
On-column Amount (ng)	: 4.8240		
Integration start scan	: 94	Integration stop scan:	136
Y at integration start	: 852	Y at integration end:	852

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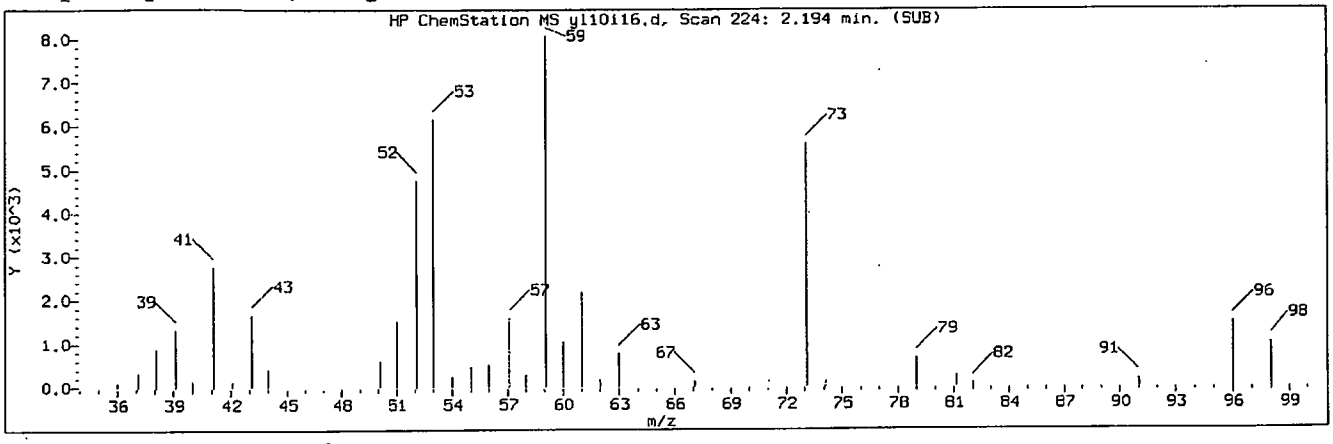
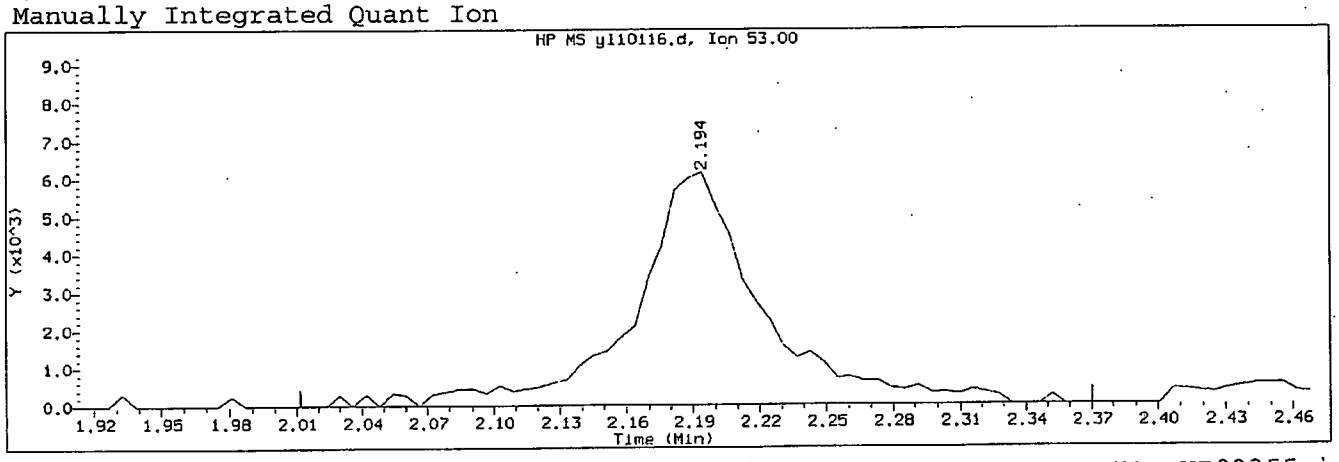
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

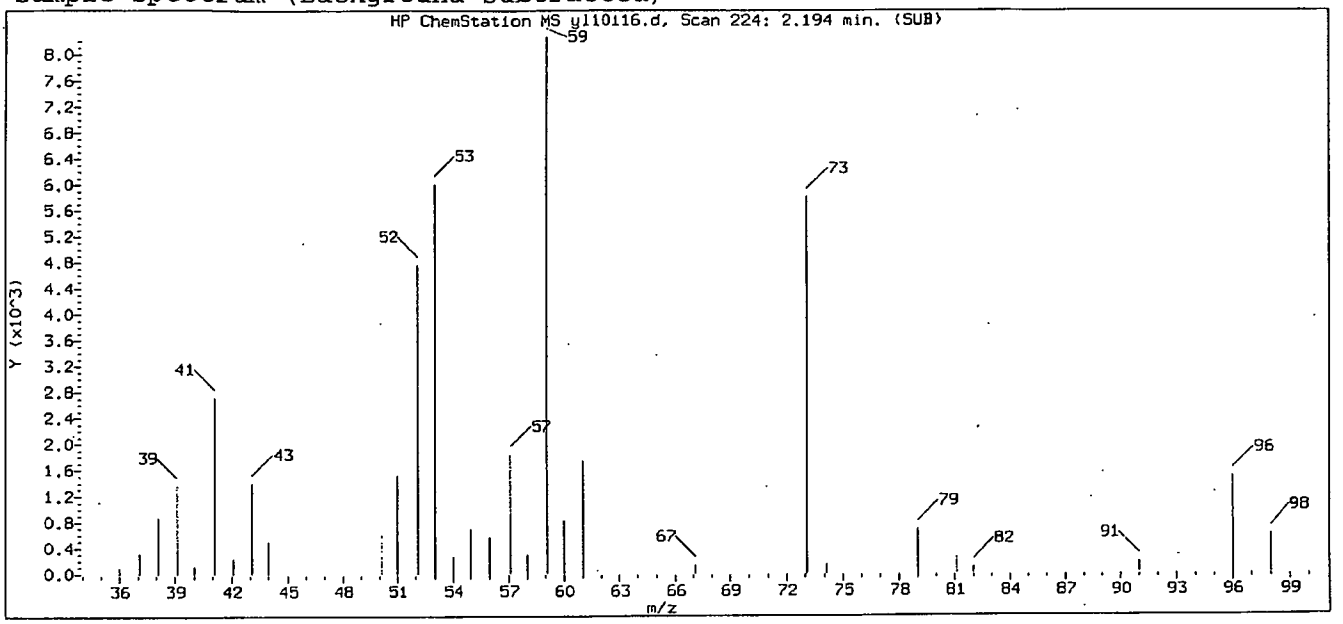
Compound Number	: 30		
Compound Name	: Acrylonitrile		
Scan Number	: 224		
Retention Time (minutes)	: 2.194		
Quant Ion	: 53.00		
Area (flag)	: 25299M		
On-Column Amount (ng)	: 4.6454		
Integration start scan	: 193	Integration stop scan:	252
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

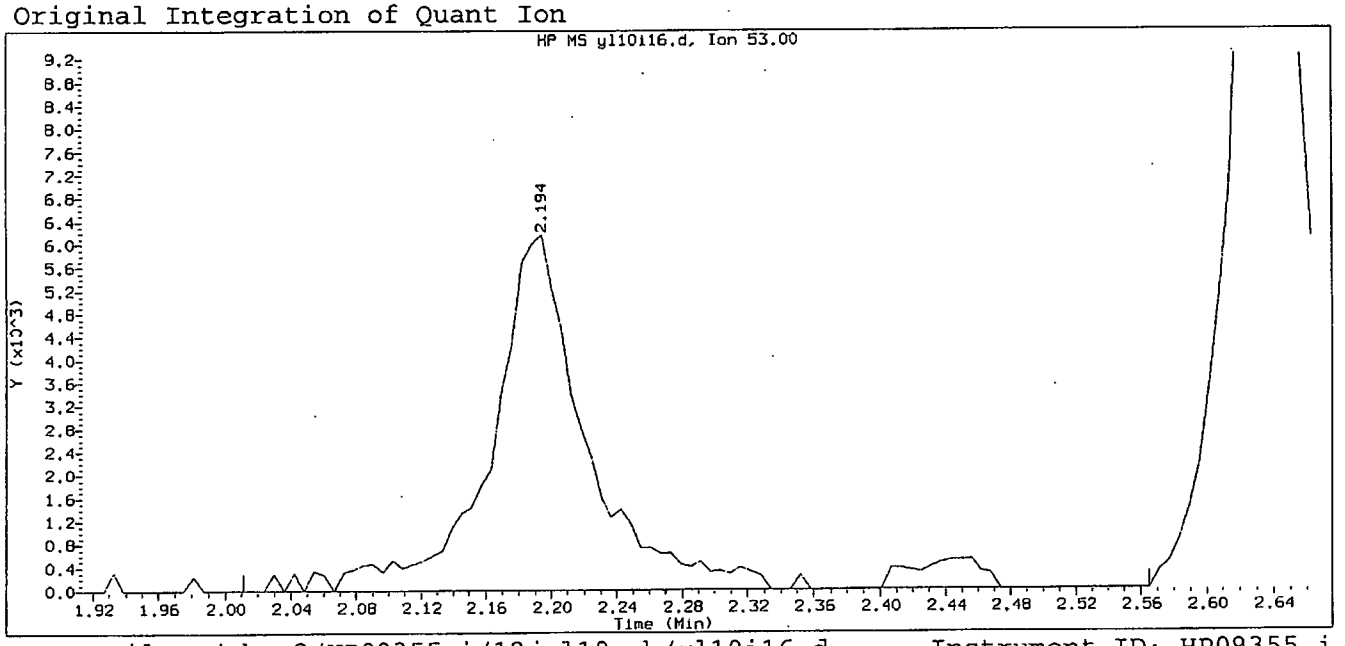
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:05
Date, time and analyst ID of latest file update: 10-Jul-2012 14:05 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 30		
Compound Name	: Acrylonitrile		
Scan Number	: 224		
Retention Time (minutes)	: 2.194		
Quant Ion	: 53.00		
Area	: 26887		
On-column Amount (ng)	: 4.8777		
Integration start scan	: 193	Integration stop scan:	284
Y at integration start	: 0	Y at integration end:	0

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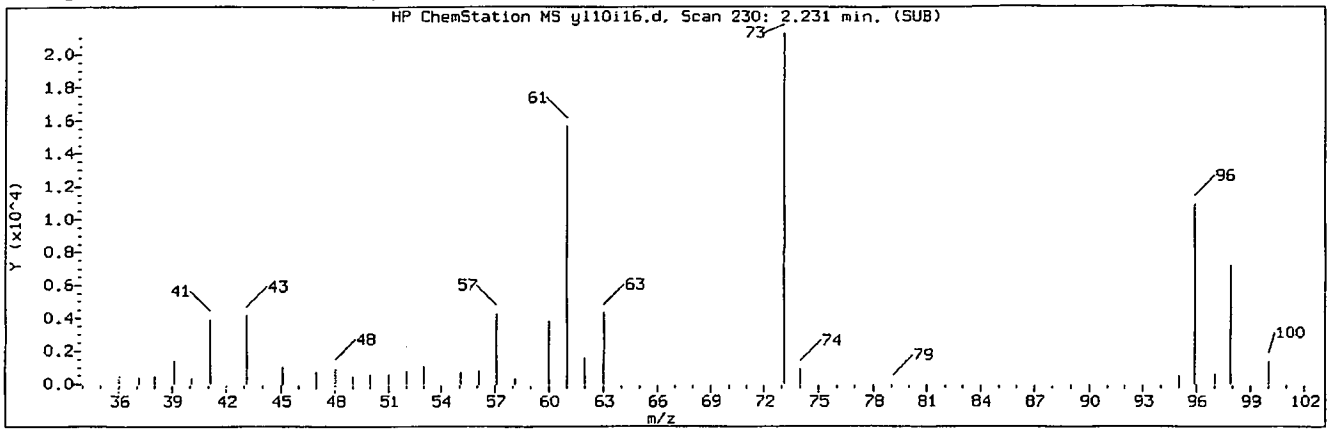
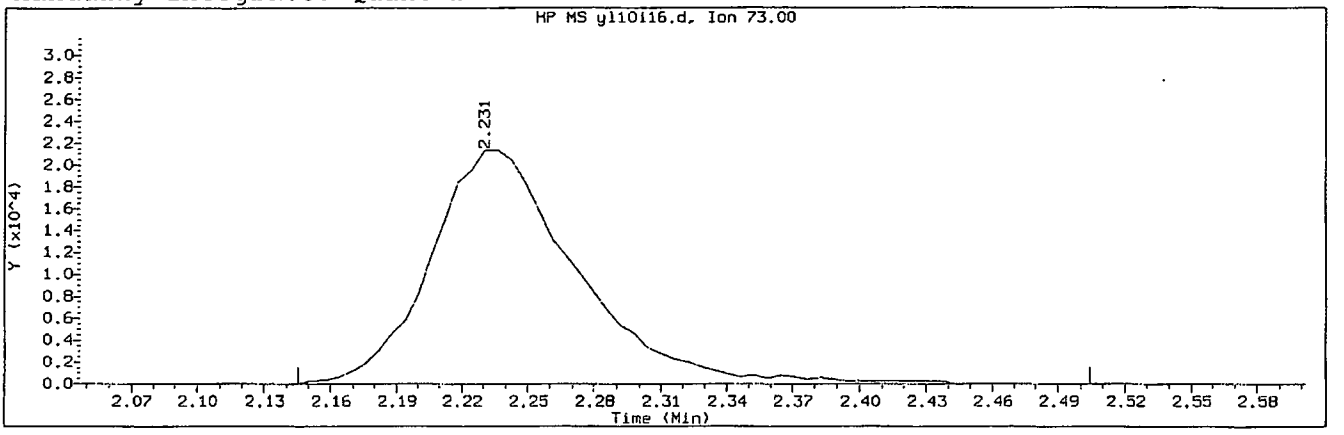
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

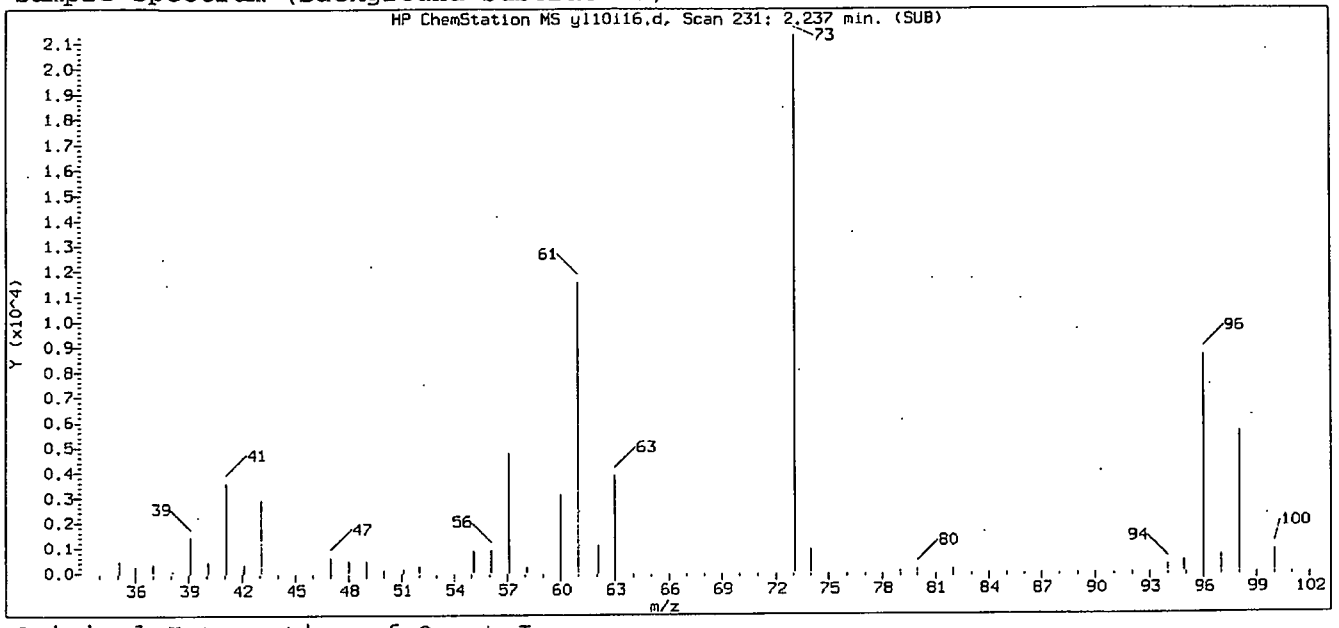
Compound Number	: 32		
Compound Name	: Methyl Tertiary Butyl Ether		
Scan Number	: 230		
Retention Time (minutes)	: 2.231		
Quant Ion	: 73.00		
Area (flag)	: 98595M		
On-Column Amount (ng)	: 4.1963		
Integration start scan	: 215	Integration stop scan:	274
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

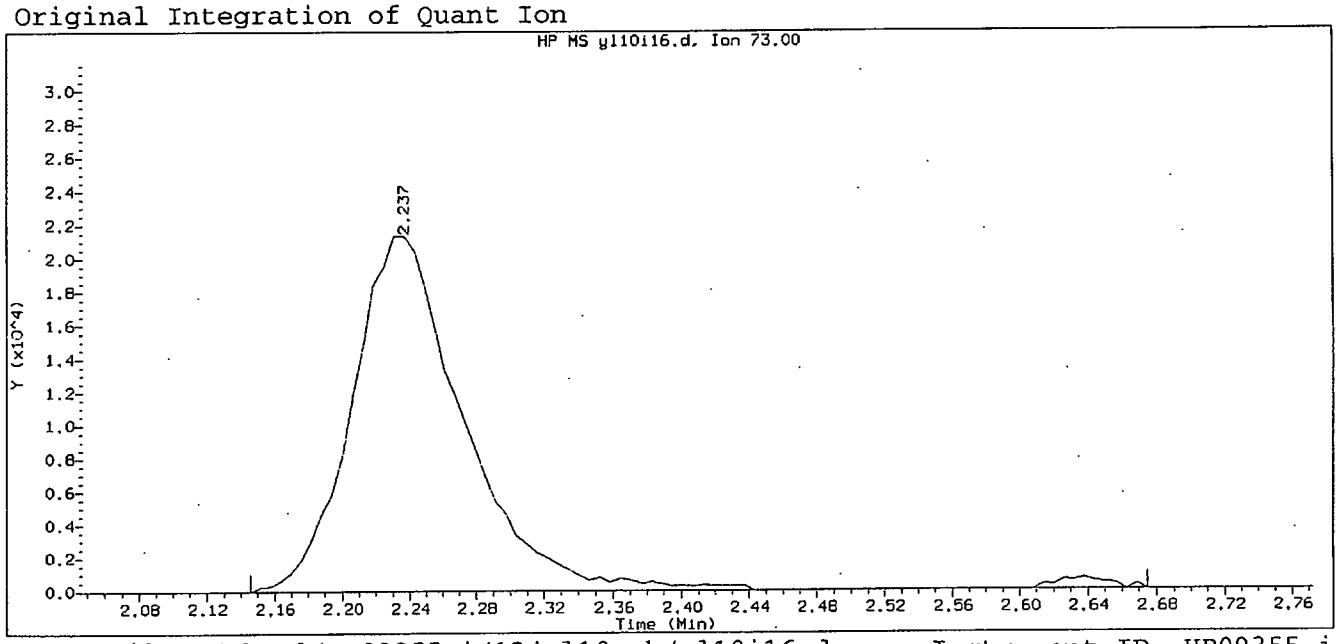
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

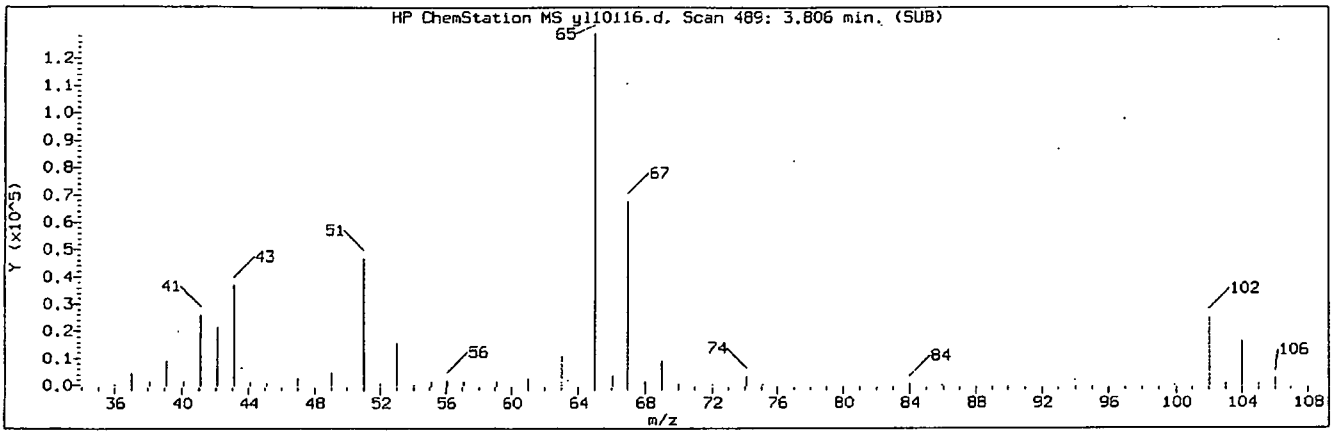
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:05
Date, time and analyst ID of latest file update: 10-Jul-2012 14:05 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

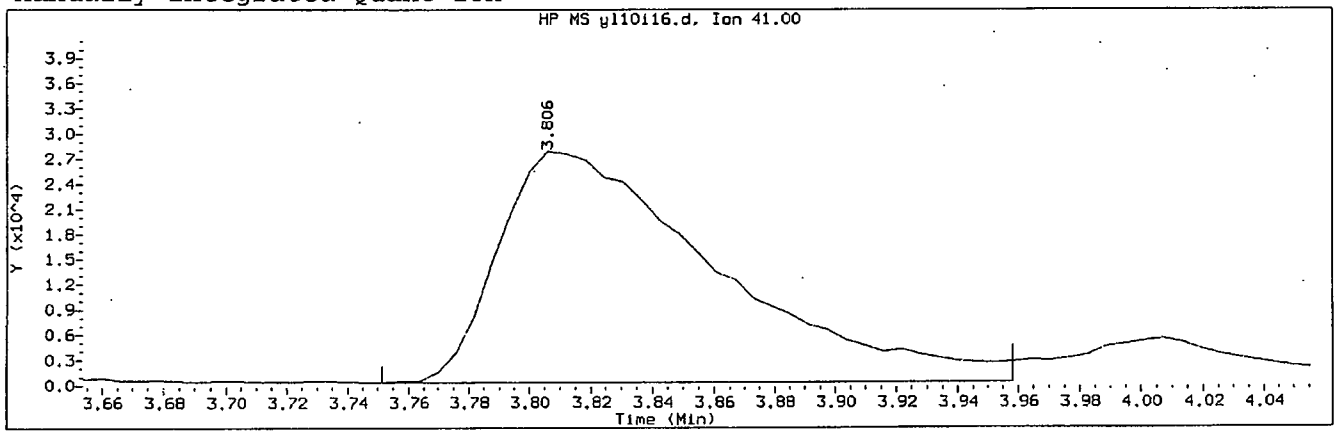
Compound Number	: 32		
Compound Name	: Methyl Tertiary Butyl Ether		
Scan Number	: 231		
Retention Time (minutes)	: 2.237		
Quant Ion	: 73.00		
Area	: 100120		
On-column Amount (ng)	: 4.2386		
Integration start scan	: 215	Integration stop scan:	302
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD004 Lab Sample ID: VSTD004

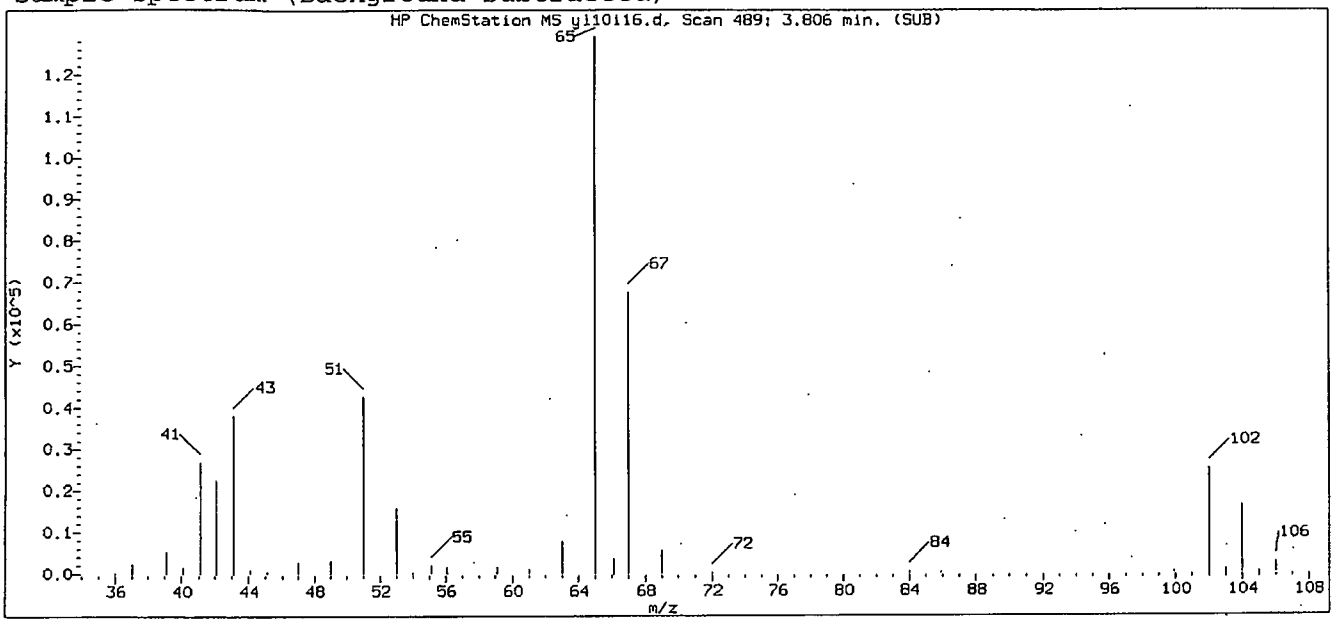
Compound Number	: 59		
Compound Name	: Isobutyl Alcohol		
Scan Number	: 489		
Retention Time (minutes)	: 3.806		
Quant Ion	: 41.00		
Area (flag)	: 137189M		
On-Column Amount (ng)	: 193.4787		
Integration start scan	: 479	Integration stop scan:	513
Y at integration start	: 339	Y at integration end:	339

Reason for manual integration: improper integration

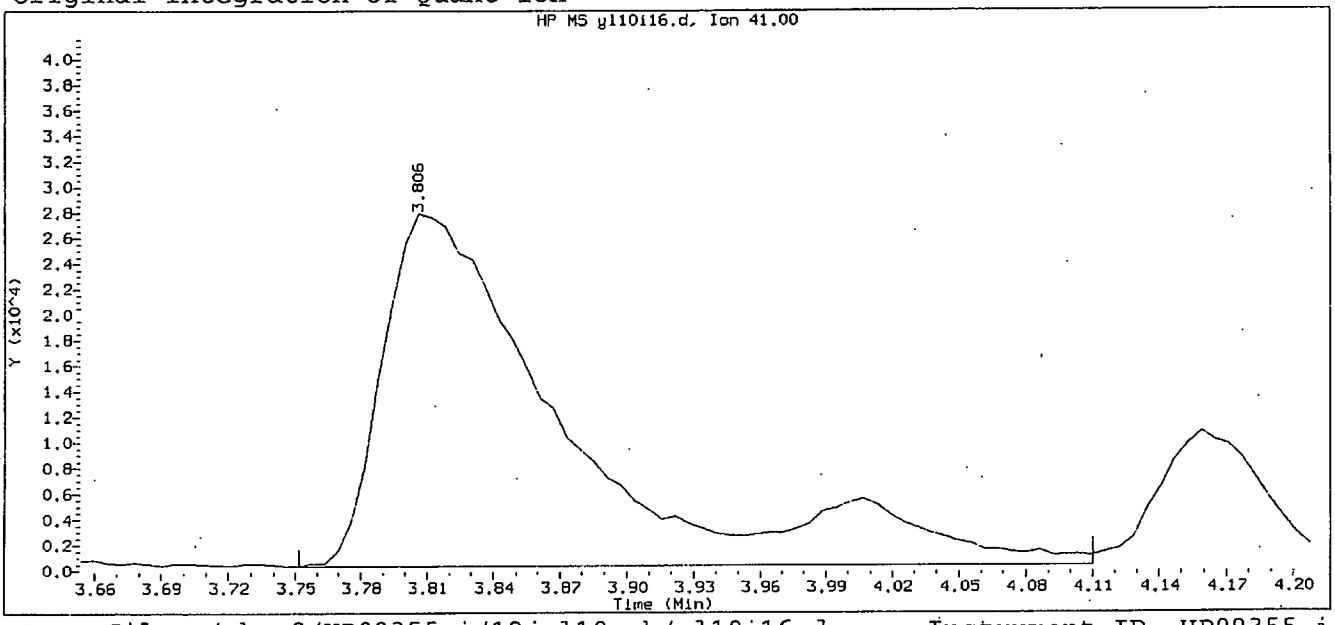
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14.40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i16.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 13:50 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:05
Date, time and analyst ID of latest file update: 10-Jul-2012 14:05 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 59		
Compound Name	: Isobutyl Alcohol		
Scan Number	: 489		
Retention Time (minutes)	: 3.806		
Quant Ion	: 41.00		
Area	: 160073		
On-column Amount (ng)	: 219.8401		
Integration start scan	: 479	Integration stop scan:	538
Y at integration start	: 339	Y at integration end:	339

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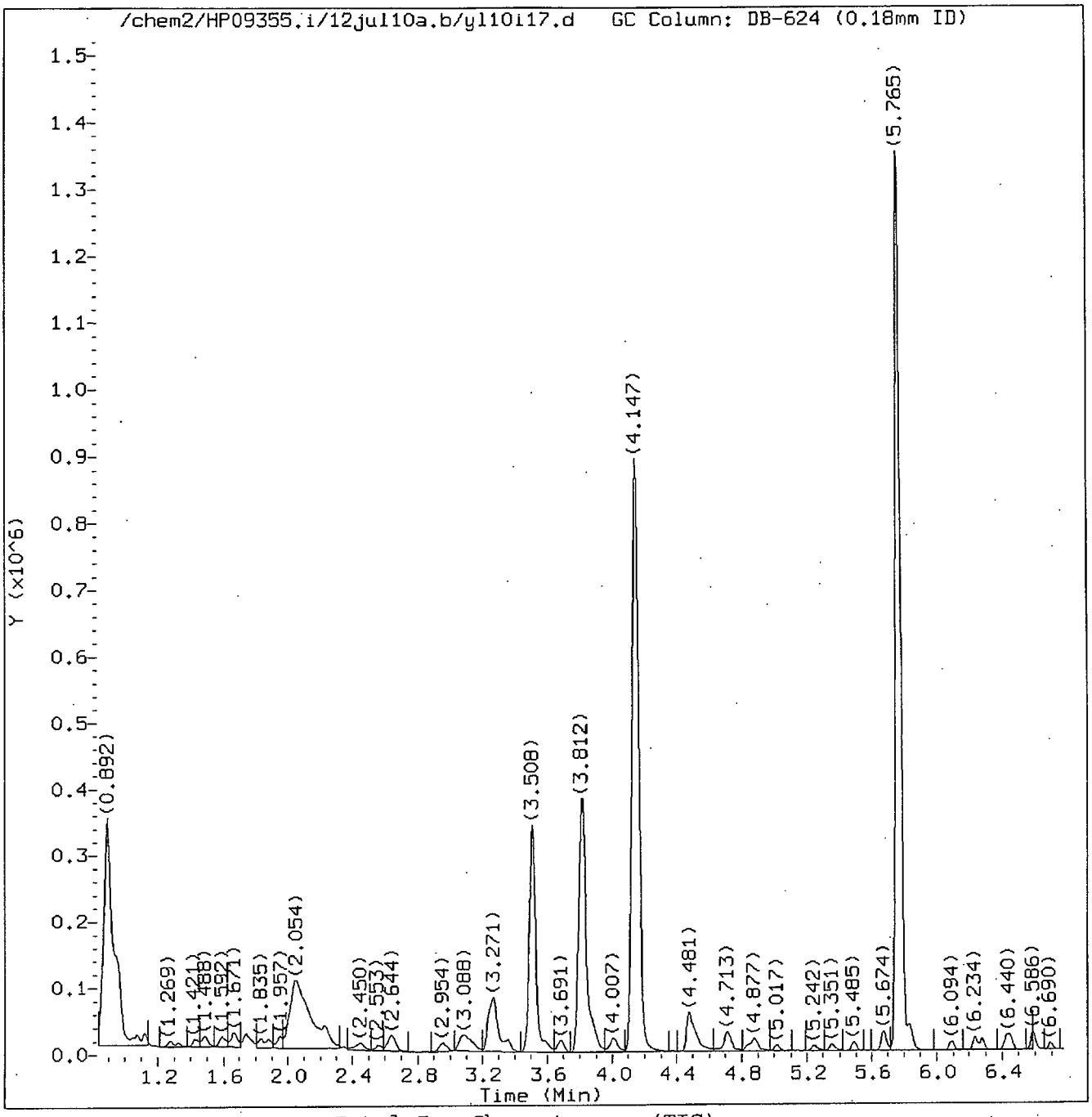
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d
Injection date and time: 10-JUL-2012 14:10

Instrument ID: HP09355.i
Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m
Calibration date and time: 10-JUL-2012 14:38

Sublist used: 8260WI

Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001

Lab Sample ID: VSTD001

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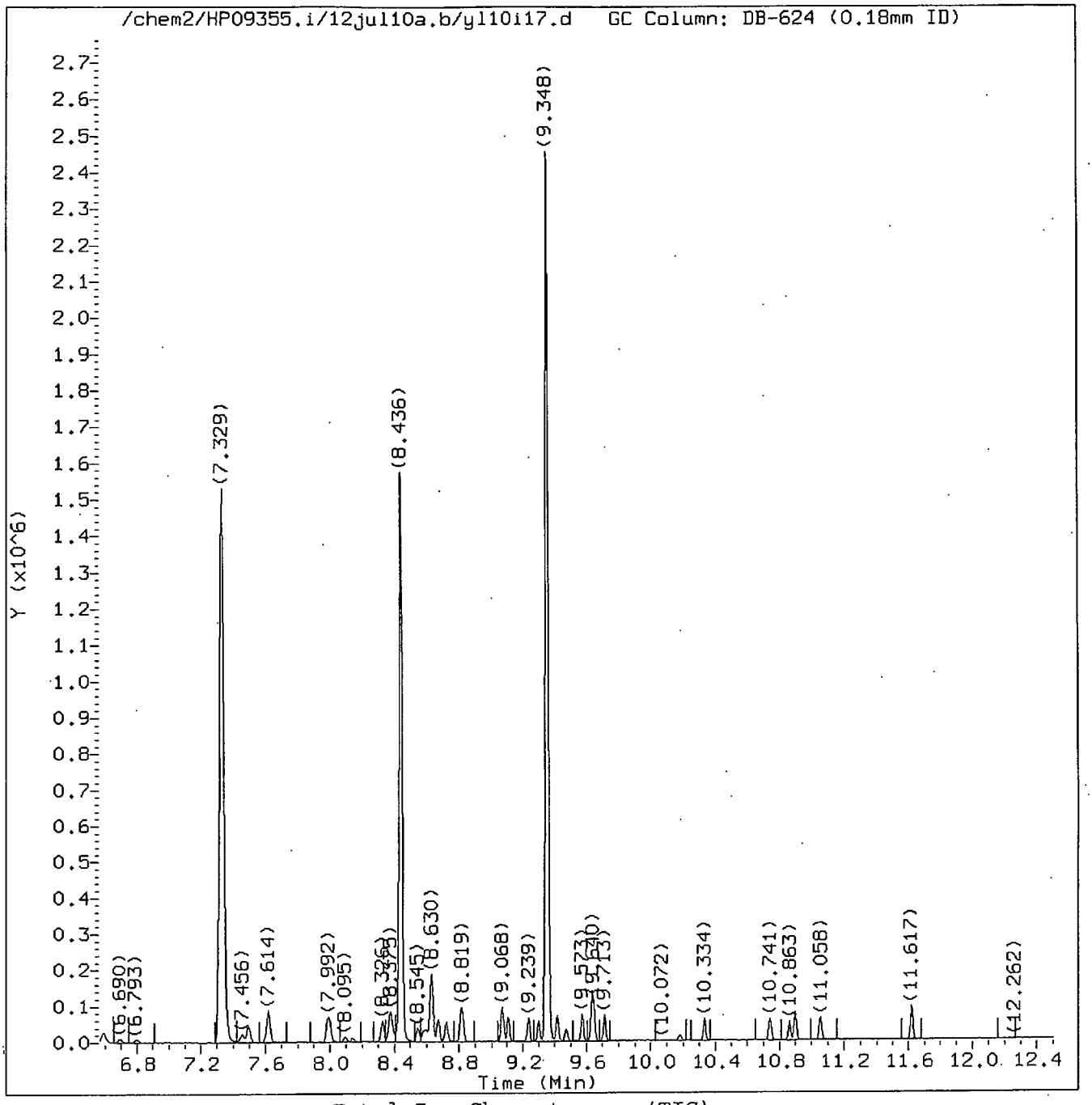
on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/y110i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

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on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.026	85	7247	0.749
3) Chloromethane	(1)	1.050	50	10205	1.005
5) Vinyl Chloride	(1)	1.123	62	9131	0.955
4) 1,3-Butadiene	(1)	1.123	39	9068	1.276
7) Bromomethane	(1)	1.275	94	5978	1.021
8) Chloroethane	(1)	1.330	64	4663	0.938
9) Dichlorofluoromethane	(1)	1.427	67	12594	1.075
10) Trichlorofluoromethane	(1)	1.488	101	8295M	0.815
11) n-Pentane	(1)	1.488	43	10123	0.889
18) Freon 113	(1)	1.488	101	8295M	1.411
14) Freon 123a	(1)	1.592	67	8841	1.252
13) Ethyl Ether	(1)	1.592	59	5596	0.933
15) Acrolein	(4)	1.671	56	26797	8.781
16) 1,1-Dichloroethene	(1)	1.738	96	5267	0.976
17) Acetone	(1)	1.744	58	3296	2.357
20) Methyl Iodide	(1)	1.829	142	9428	0.918
21) 2-Propanol	(4)	1.835	45	26903	20.096
22) Carbon Disulfide	(1)	1.884	76	14898	0.877
24) Allyl Chloride	(1)	1.951	41	10010	0.979
26) Methylene Chloride	(1)	2.036	84	7363	1.111
28) *t-Butyl Alcohol-d10	(4)	2.054	65	445533	250.000
30) Acrylonitrile	(1)	2.078	53	7383	1.357
29) t-Butyl Alcohol	(4)	2.109	59	44306	17.638
25) Methyl Acetate	(1)	2.109	43	11879M	1.197
31) trans-1,2-Dichloroethene	(1)	2.237	96	6040	0.930
32) Methyl Tertiary Butyl Ether	(1)	2.243	73	23104	0.984
33) n-Hexane	(1)	2.456	57	9517	0.836
34) 1,1-Dichloroethane	(1)	2.559	63	11473	0.897
36) di-Isopropyl Ether	(1)	2.632	45	25628	1.019
37) 2-Chloro-1,3-Butadiene	(1)	2.644	53	10278	0.894
39) Ethyl t-Butyl Ether	(1)	2.954	59	23071	0.969
40) cis-1,2-Dichloroethene	(1)	3.064	96	6793	0.930
42) 2,2-Dichloropropane	(1)	3.070	77	8838	0.884
41) 2-Butanone	(1)	3.070	43	19445	2.419
43) Propionitrile	(4)	3.125	54	45890M	16.879
46) Methacrylonitrile	(1)	3.271	67	50295	9.677
47) Bromochloromethane	(1)	3.277	128	3269	0.864
48) Tetrahydrofuran	(4)	3.326	71	3873	1.540

M = Compound was manually integrated.
* = Compound is an internal standard.

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Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Chloroform	(1)	3.356	83	12662	1.029
52)$Dibromofluoromethane	(1)	3.508	113	276702	49.689
51)$Dibromofluoromethane(mz111)	(1)	3.508	111	283248	49.825
53) 1,1,1-Trichloroethane	(1)	3.532	97	11186	0.977
55) Cyclohexane (mz 69)	(1)	3.587	69	3113	0.799
54) Cyclohexane (mz 84)	(1)	3.593	84	8550	0.808
56) Cyclohexane	(1)	3.593	56	11291	0.864
45) 1,2-Dichloroethene (total)	(1)		96	12833	1.860
57) 1,1-Dichloropropene	(1)	3.684	75	8417	0.870
58) Carbon Tetrachloride	(1)	3.691	117	7095	0.841
59) Isobutyl Alcohol	(4)	3.812	41	37112	48.995
61)$1,2-Dichloroethane-d4(mz65)	(1)	3.812	65	368651	49.957
60)$1,2-Dichloroethane-d4(mz104)	(1)	3.818	104	46355	50.136
62)$1,2-Dichloroethane-d4	(1)	3.818	102	74270	51.008
63) Benzene	(1)	3.873	78	26808	0.944
64) 1,2-Dichloroethane (mz 98)	(1)	3.885	98	723	0.806
65) 1,2-Dichloroethane	(1)	3.891	62	10536	0.990
69) t-Amyl Methyl Ether	(1)	4.007	73	21078	0.950
71)*Fluorobenzene	(1)	4.147	96	1204616	50.000
72) n-Heptane	(1)	4.165	43	15547	1.146
73) n-Butanol	(4)	4.475	56	58181	84.780
74) Trichloroethene	(1)	4.506	95	6818	0.944
75) Methylcyclohexane (mz98)	(1)	4.707	98	4139	0.720
76) Methylcyclohexane	(1)	4.707	83	10411	0.806
77) 1,2-Dichloropropane	(1)	4.731	63	7203	0.930
78) Dibromomethane	(1)	4.834	93	4469	0.913
79) 1,4-Dioxane	(4)	4.877	88	6594	36.228
80) Methyl Methacrylate	(1)	4.883	69	7774	0.939
83) Bromodichloromethane	(1)	5.017	83	7453	0.861
85) 2-Nitropropane	(1)	5.242	41	9318	2.471
86) 2-Chloroethyl Vinyl Ether	(1)	5.357	63	5758	0.887
87) cis-1,3-Dichloropropene	(1)	5.485	75	9374	0.827
89) 4-Methyl-2-Pentanone	(1)	5.674	43	36850	2.449
93)$Toluene-d8	(2)	5.765	98	1183288	49.816
92)$Toluene-d8(mz100)	(2)	5.765	100	768294	48.427
94) Toluene	(2)	5.838	92	16756	0.924
95) trans-1,3-Dichloropropene	(2)	6.094	75	9122	0.819
96) Ethyl Methacrylate	(2)	6.240	69	11863	0.910

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,1,2-Trichloroethane	(2)	6.276	97	6286	0.907
98) Tetrachloroethene	(2)	6.428	166	7498	0.900
99) 1,3-Dichloropropane	(2)	6.453	76	11230	0.905
101) 2-Hexanone	(2)	6.586	43	23415M	1.906
102) Dibromochloromethane	(2)	6.696	129	5729	0.841
104) 1,2-Dibromoethane	(2)	6.793	107	6858	0.900
106)*Chlorobenzene-d5	(2)	7.329	117	872490	50.000
107) Chlorobenzene	(2)	7.359	112	19293	0.944
108) 1,1,1,2-Tetrachloroethane	(2)	7.456	131	5859	0.867
109) Ethylbenzene	(2)	7.493	91	32359	0.914
110) m+p-Xylene	(2)	7.614	106	24851	1.801
113) o-Xylene	(2)	7.986	106	12074	0.886
114) Styrene	(2)	8.004	104	20442	0.879
115) Bromoform	(2)	8.138	173	4072	0.725
112) Xylene (Total)	(2)		106	36925	2.687
116) Isopropylbenzene	(2)	8.326	105	31809	0.896
118) Cyclohexanone	(4)	8.375	55	41954M	47.167
119)$4-Bromofluorobenzene	(2)	8.436	95	442899	49.959
120)$4-Bromofluorobenzene(mz174)	(2)	8.442	174	383850	49.836
121) Bromobenzene	(3)	8.551	156	8700	0.927
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	11669	0.971
123) 1,2,3-Trichloropropane	(3)	8.600	110	3675	0.947
124) trans-1,4-Dichloro-2-Butene	(3)	8.630	53	34063	8.237
125) n-Propylbenzene	(3)	8.673	91	37851	0.915
126) 2-Chlorotoluene	(3)	8.722	126	7643	0.885
128) 4-Chlorotoluene	(3)	8.813	126	8202	0.908
127) 1,3,5-Trimethylbenzene	(3)	8.819	105	27162	0.888
130) tert-Butylbenzene	(3)	9.068	134	6304	0.910
131) Pentachloroethane	(3)	9.068	167	4229	0.776
132) 1,2,4-Trimethylbenzene	(3)	9.105	105	28300	0.899
133) sec-Butylbenzene	(3)	9.239	105	33567	0.882
134) 1,3-Dichlorobenzene	(3)	9.300	146	17256	0.962
135) p-Isopropyltoluene	(3)	9.354	119	30810	0.902
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	510607	50.000
138) 1,4-Dichlorobenzene	(3)	9.367	146	18216	0.989
139) 1,2,3-Trimethylbenzene	(3)	9.415	105	29887	0.934
141) Benzyl Chloride	(3)	9.476	91	18718	0.753
142) 1,3-Diethylbenzene	(3)	9.573	119	17705	0.868

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dichlorobenzene	(3)	9.634	146	16673	0.970
143) 1,4-Diethylbenzene	(3)	9.634	119	18980	0.898
145) n-Butylbenzene	(3)	9.646	92	15188M	0.909
146) 1,2-Diethylbenzene	(3)	9.713	119	15079	0.880
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	3064	0.921
149) 1,3,5-Trichlorobenzene	(3)	10.334	180	14762	1.037
150) 1,2,4-Trichlorobenzene	(3)	10.741	180	14466	1.080
151) Hexachlorobutadiene	(3)	10.863	225	7376	1.104
152) Naphthalene	(3)	10.900	128	46193	1.019
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	14881	1.127
154) 2-Methylnaphthalene	(3)	11.624	142	32128	1.213

M = Compound was manually integrated.

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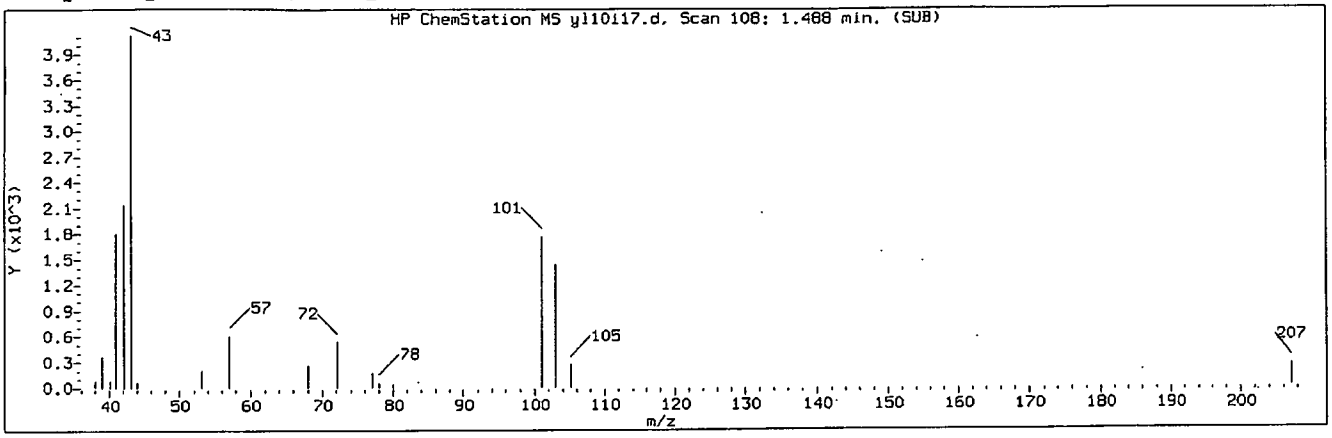
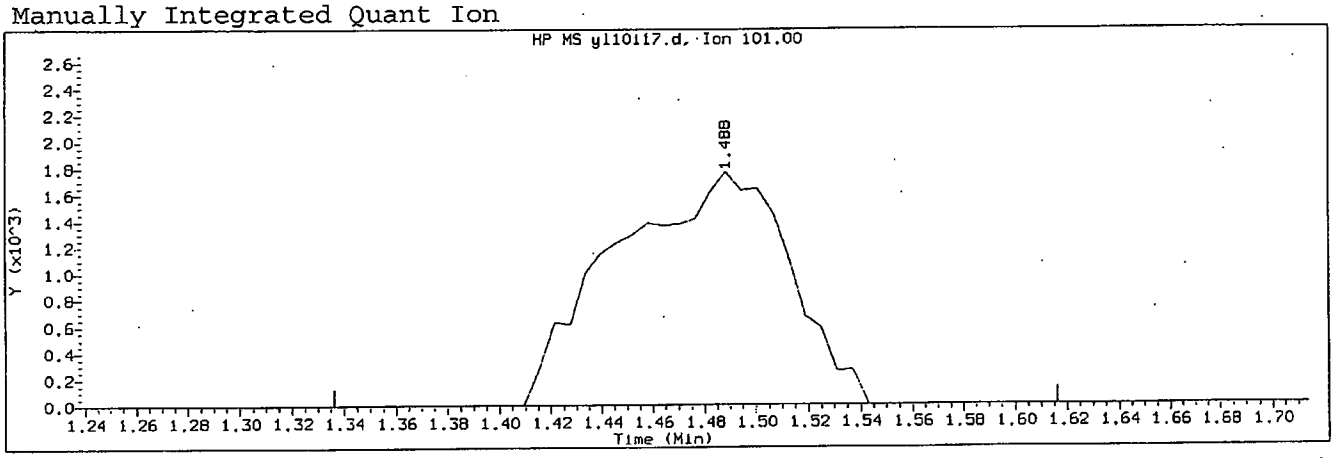
on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

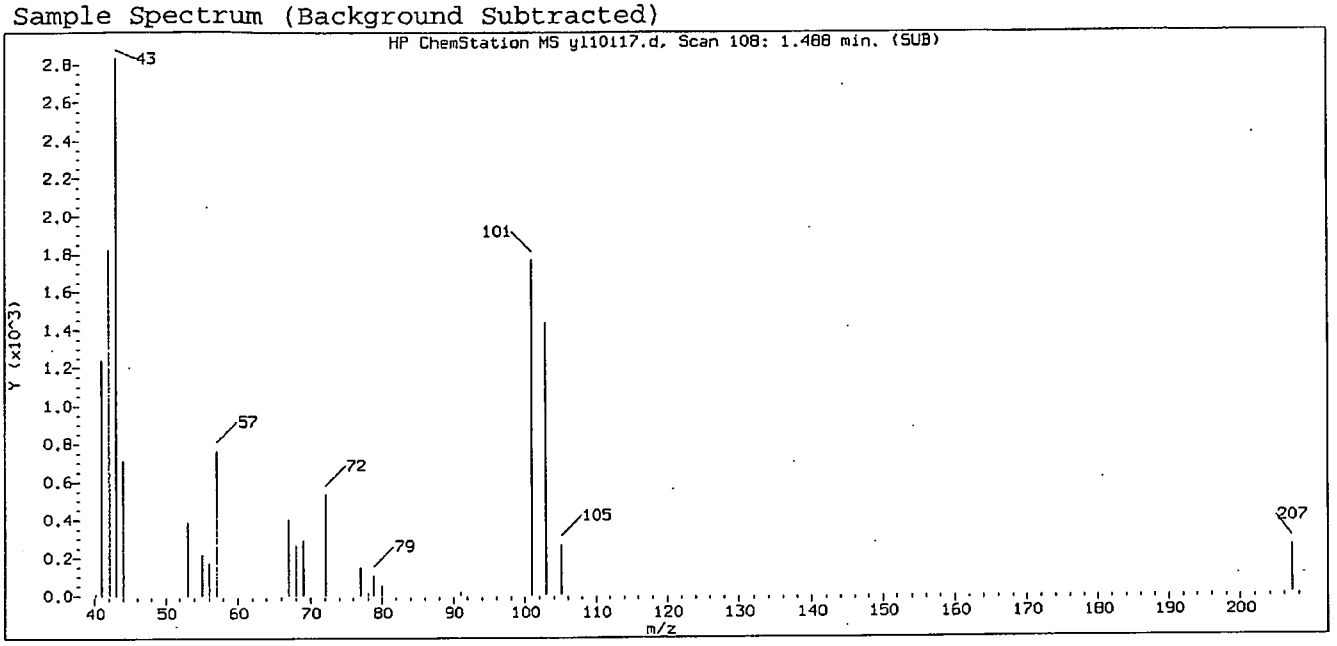
Compound Number	: 10		
Compound Name	: Trichlorofluoromethane		
Scan Number	: 108		
Retention Time (minutes)	: 1.488		
Quant Ion	: 101.00		
Area (flag)	: 8295M		
On-Column Amount (ng)	: 0.8146		
Integration start scan	: 82	Integration stop scan:	128
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

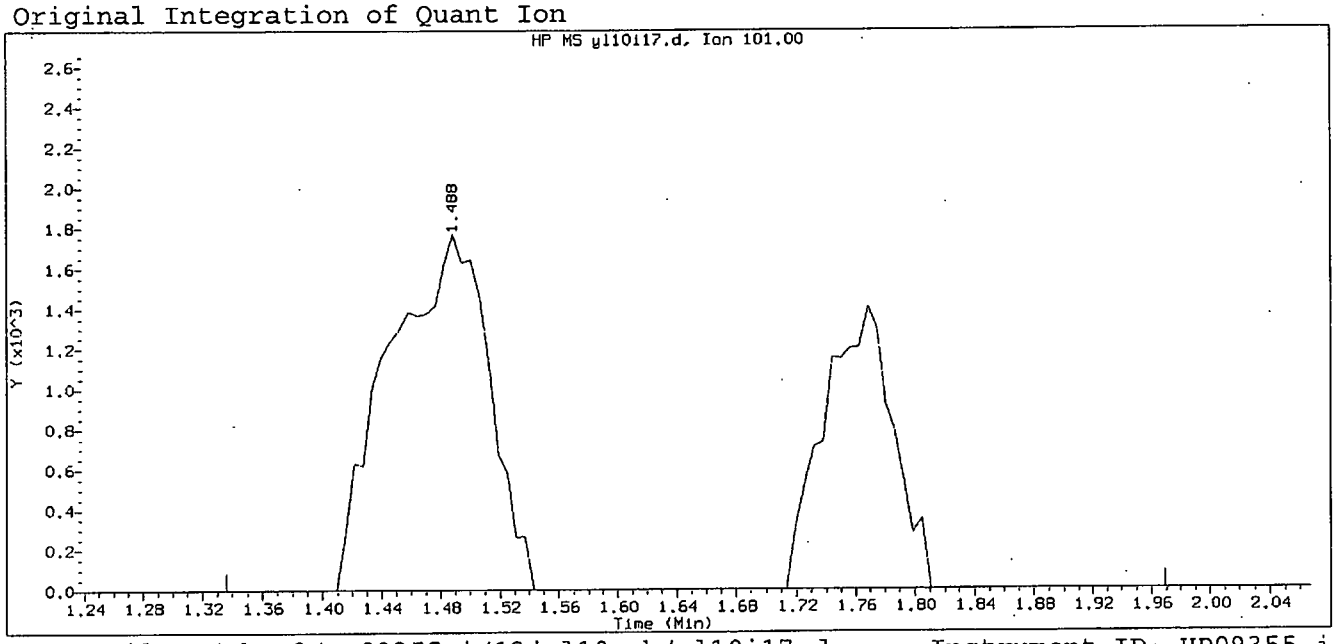
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:26
Date, time and analyst ID of latest file update: 10-Jul-2012 14:26 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 10		
Compound Name	: Trichlorofluoromethane		
Scan Number	: 108		
Retention Time (minutes)	: 1.488		
Quant Ion	: 101.00		
Area	: 12877		
On-column Amount (ng)	: 1.1882		
Integration start scan	: 82	Integration stop scan:	186
Y at integration start	: 0	Y at integration end:	0

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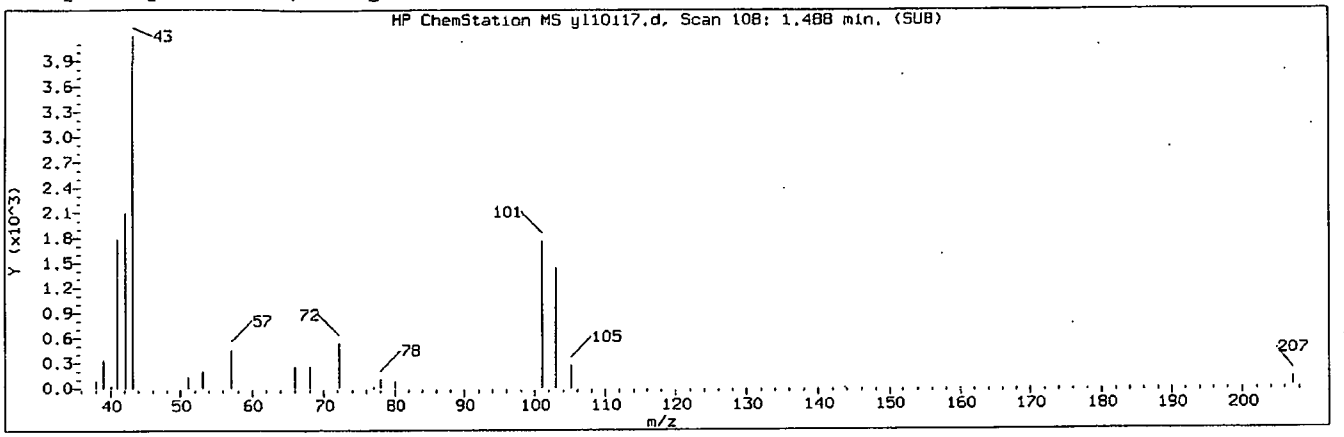
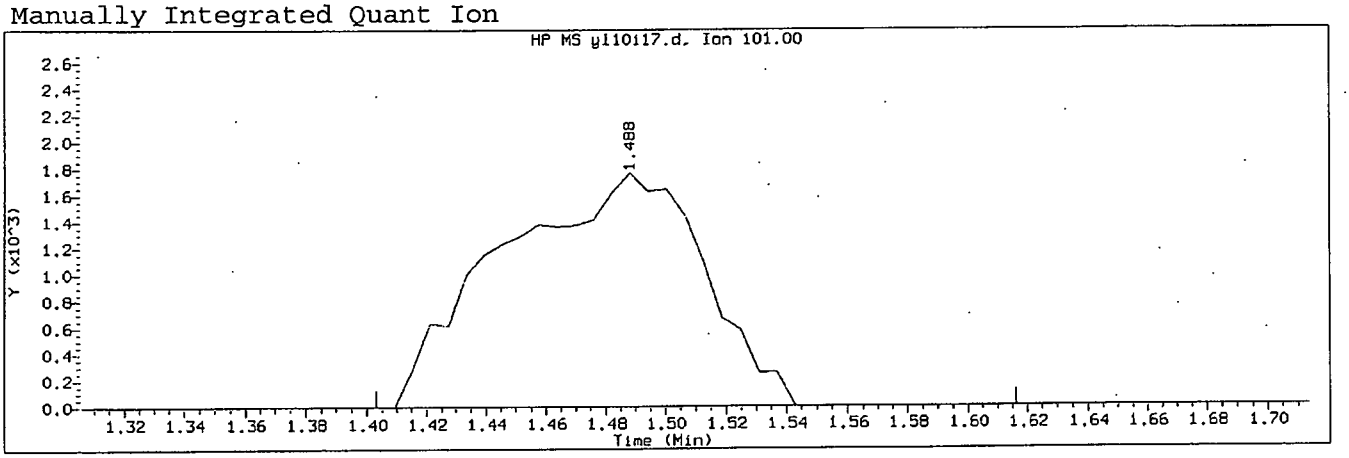
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

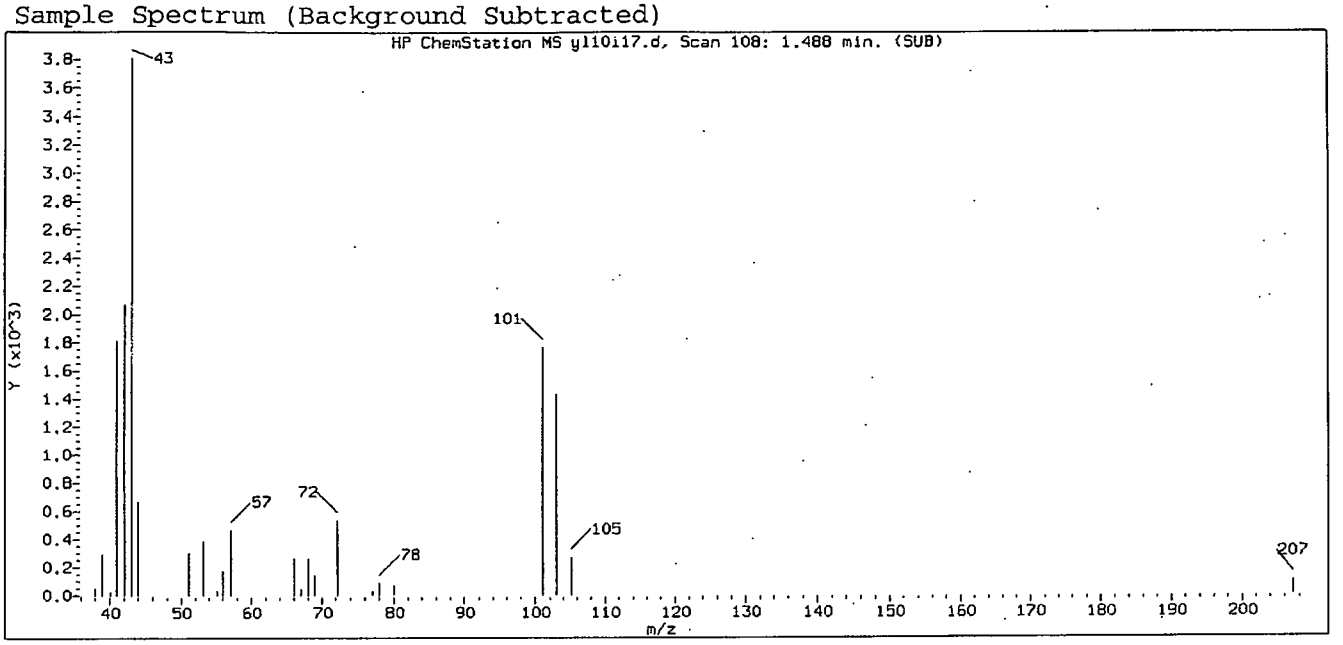
Compound Number	: 18		
Compound Name	: Freon 113		
Scan Number	: 108		
Retention Time (minutes)	: 1.488		
Quant Ion	: 101.00		
Area (flag)	: 8295M		
On-Column Amount (ng)	: 1.4107		
Integration start scan	: 93	Integration stop scan:	128
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

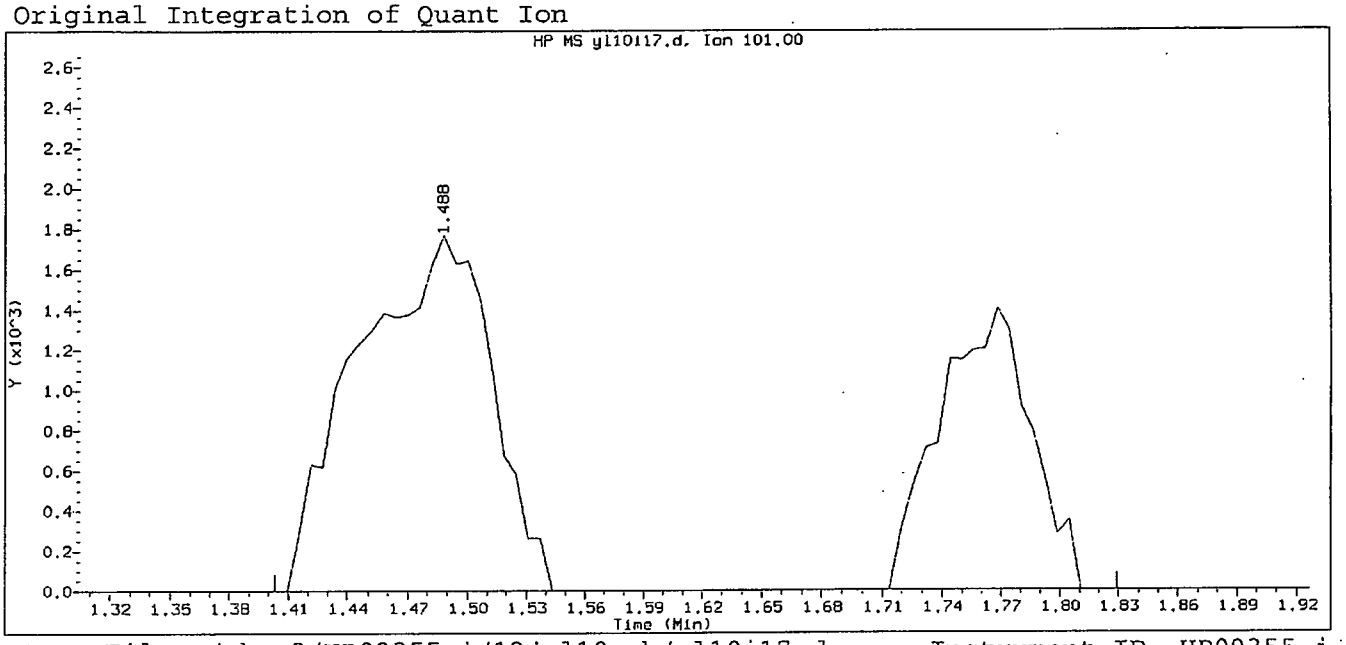
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40 Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

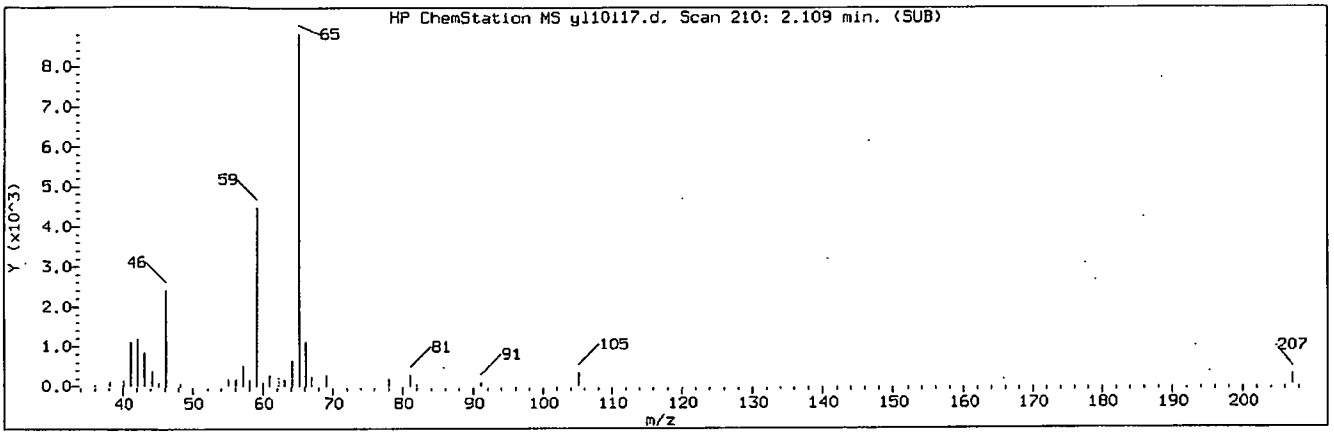
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:26
Date, time and analyst ID of latest file update: 10-Jul-2012 14:26 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

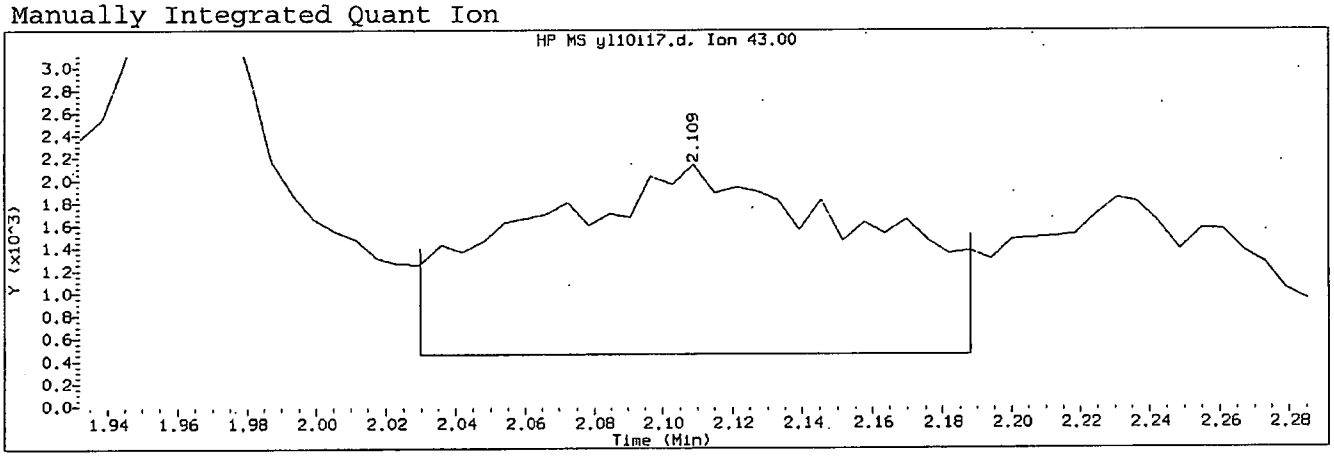
Compound Number	: 18		
Compound Name	: Freon 113		
Scan Number	: 108		
Retention Time (minutes)	: 1.488		
Quant Ion	: 101.00		
Area	: 12877		
On-column Amount (ng)	: 2.1901		
Integration start scan	: 93	Integration stop scan:	163
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

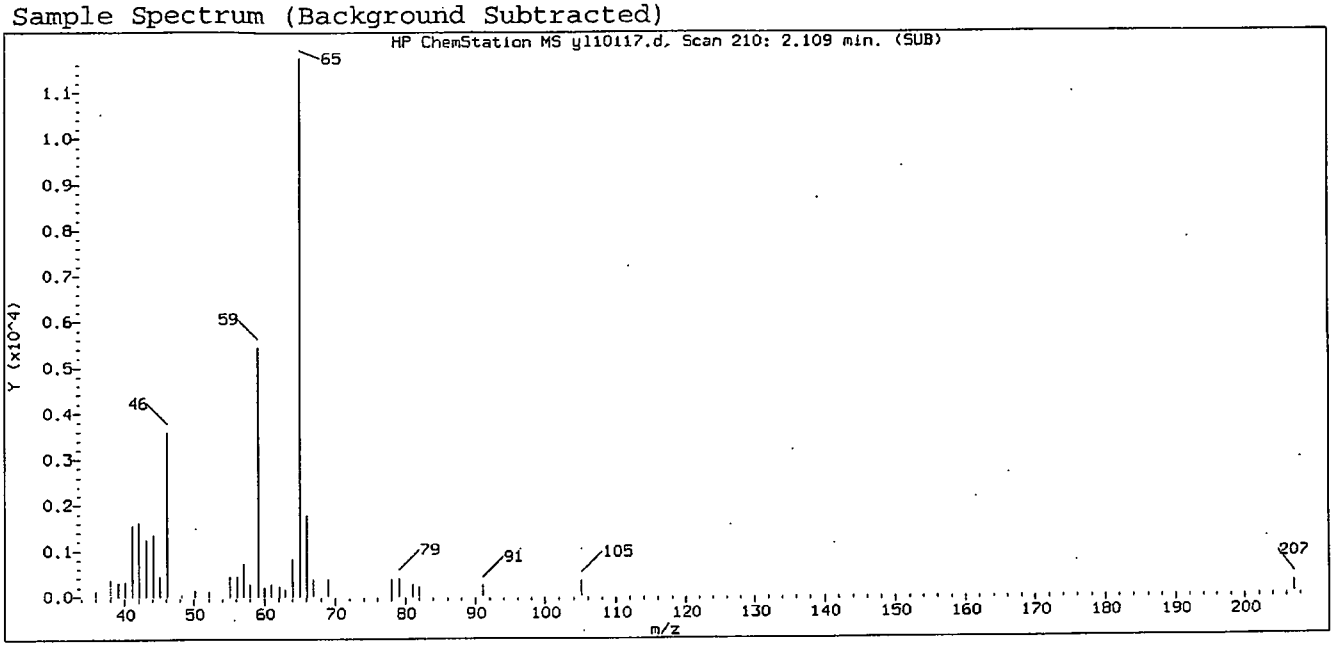
Compound Number	: 25		
Compound Name	: Methyl Acetate		
Scan Number	: 210		
Retention Time (minutes)	: 2.109		
Quant Ion	: 43.00		
Area (flag)	: 11879M		
On-Column Amount (ng)	: 1.1973		
Integration start scan	: 196	Integration stop scan:	222
Y at integration start	: 458	Y at integration end:	458

Reason for manual integration: improper integration

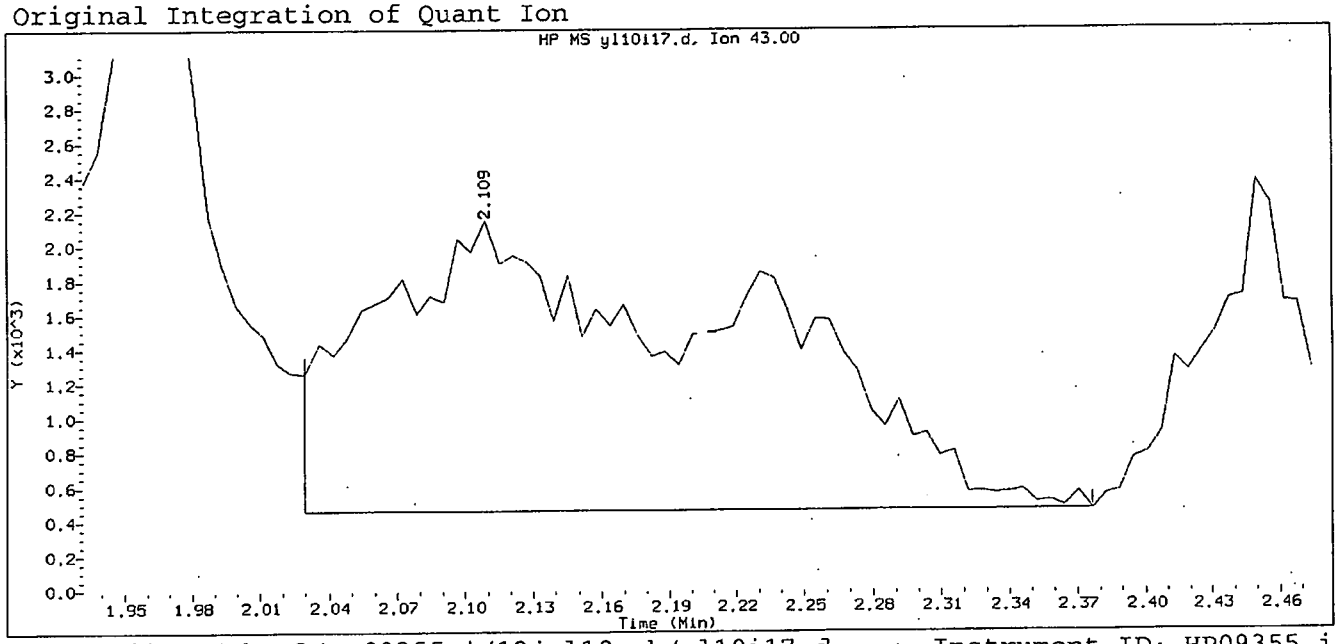
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

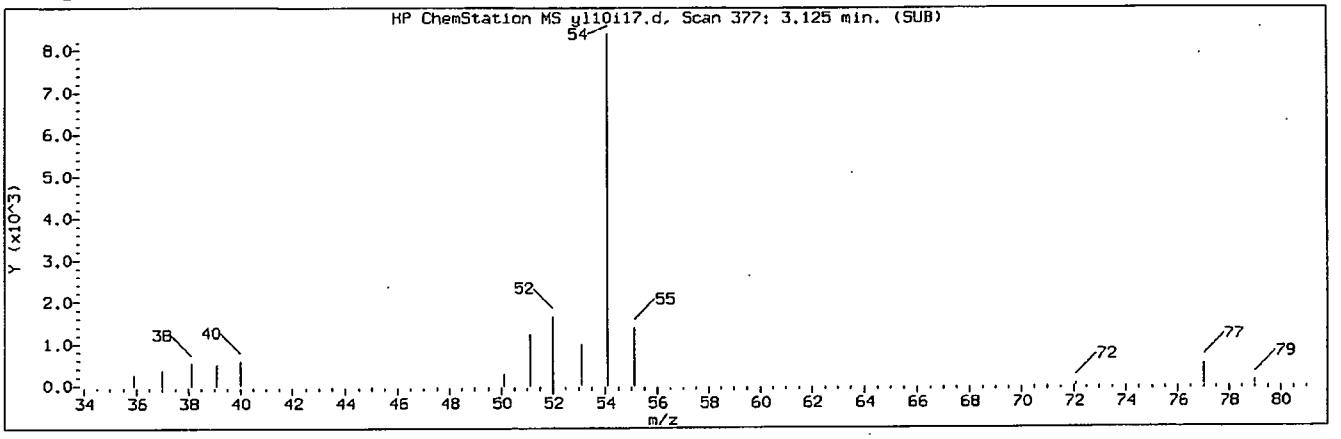
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:26
Date, time and analyst ID of latest file update: 10-Jul-2012 14:26 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

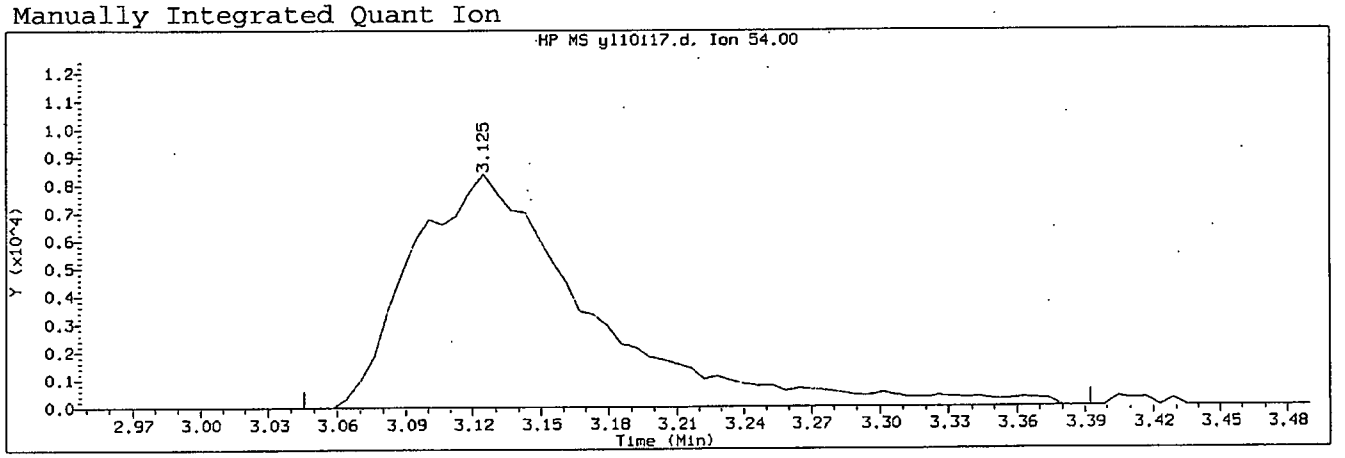
Compound Number	: 25		
Compound Name	: Methyl Acetate		
Scan Number	: 210		
Retention Time (minutes)	: 2.109		
Quant Ion	: 43.00		
Area	: 18655		
On-column Amount (ng)	: 1.8803		
Integration start scan	: 196	Integration stop scan:	253
Y at integration start	: 458	Y at integration end:	458

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

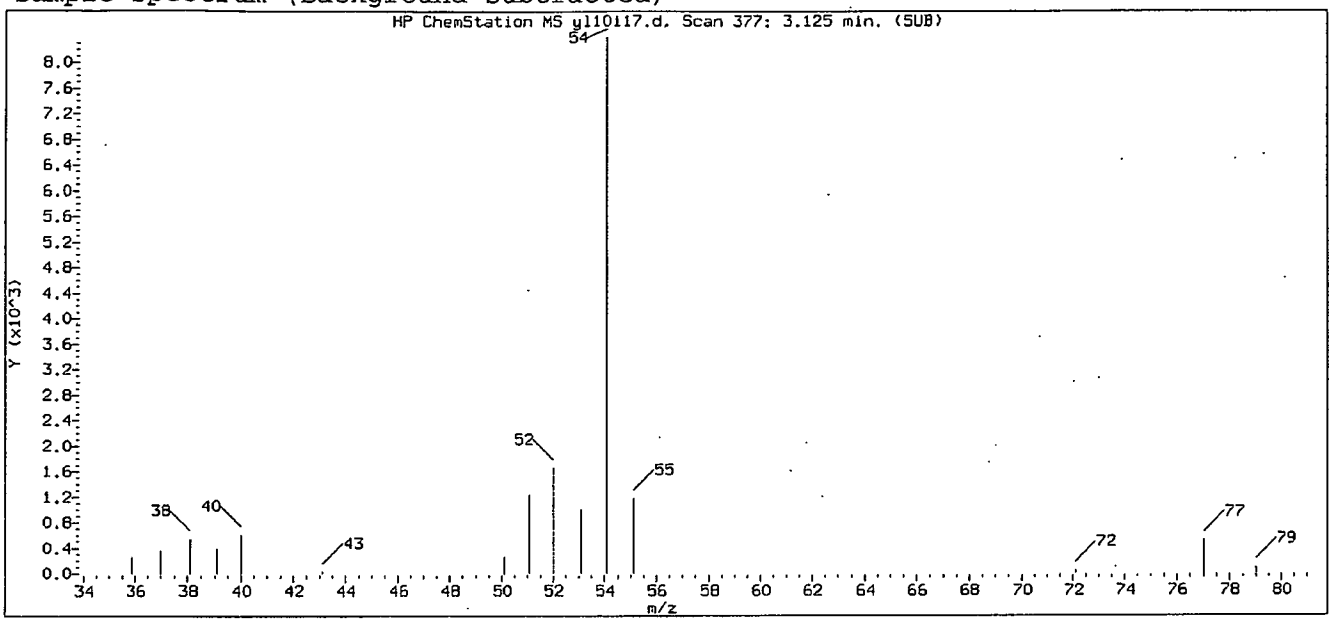
Compound Number	: 43		
Compound Name	: Propionitrile		
Scan Number	: 377		
Retention Time (minutes)	: 3.125		
Quant Ion	: 54.00		
Area (flag)	: 45890M		
On-Column Amount (ng)	: 16.8793		
Integration start scan	: 363	Integration stop scan:	420
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

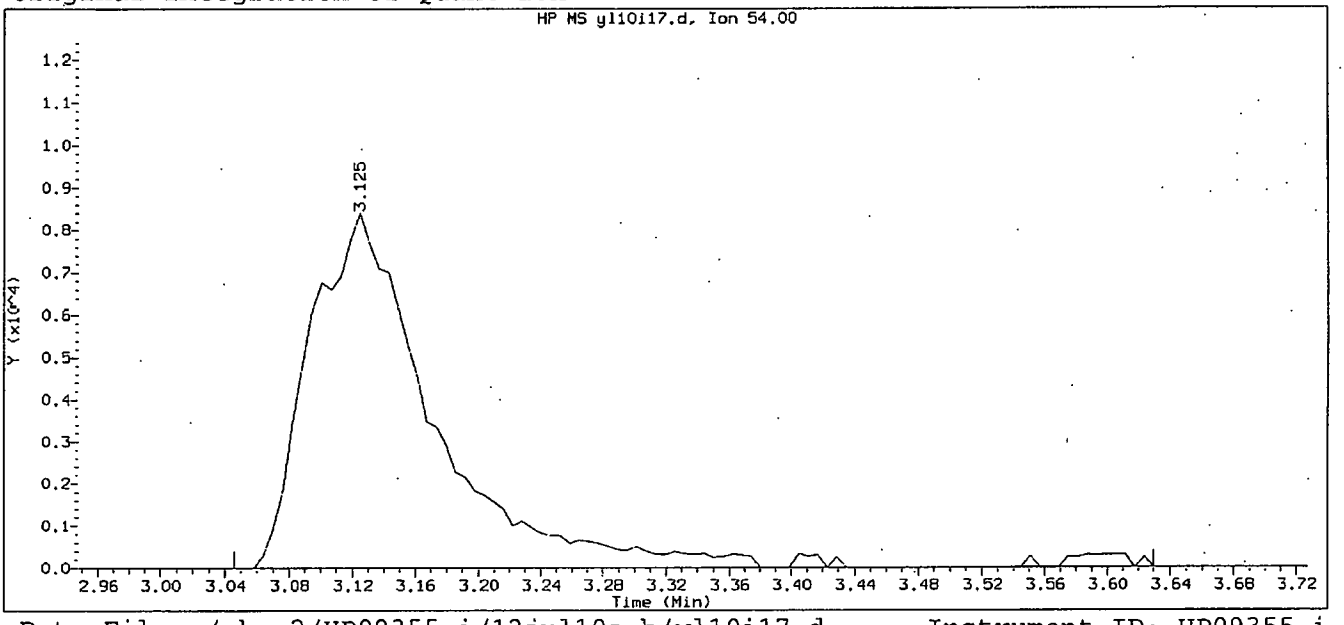
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

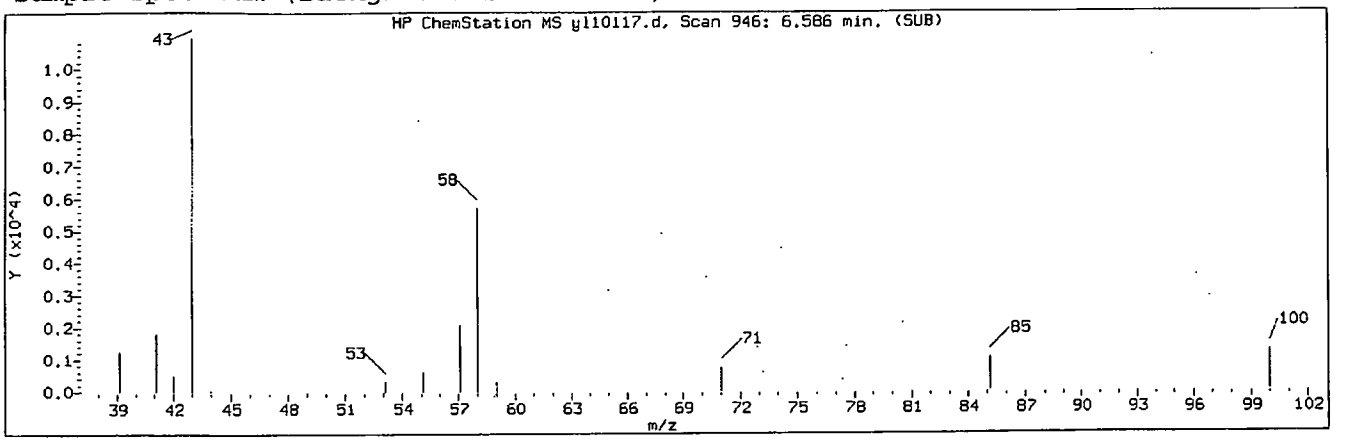
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:26
Date, time and analyst ID of latest file update: 10-Jul-2012 14:26 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

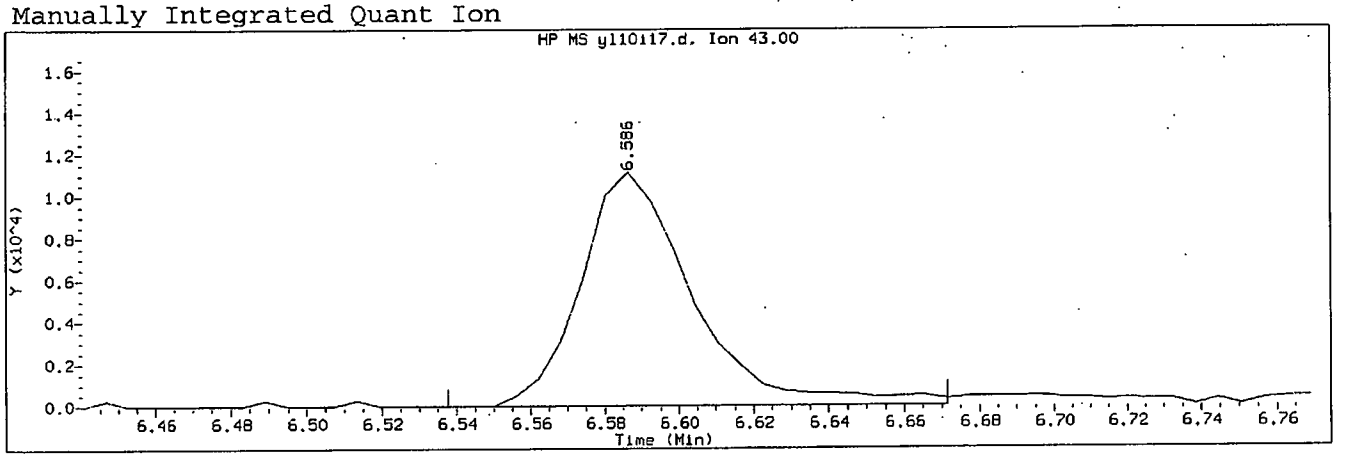
Compound Number	: 43		
Compound Name	: Propionitrile		
Scan Number	: 377		
Retention Time (minutes)	: 3.125		
Quant Ion	: 54.00		
Area	: 47249		
On-column Amount (ng)	: 17.3792		
Integration start scan	: 363	Integration stop scan:	459
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

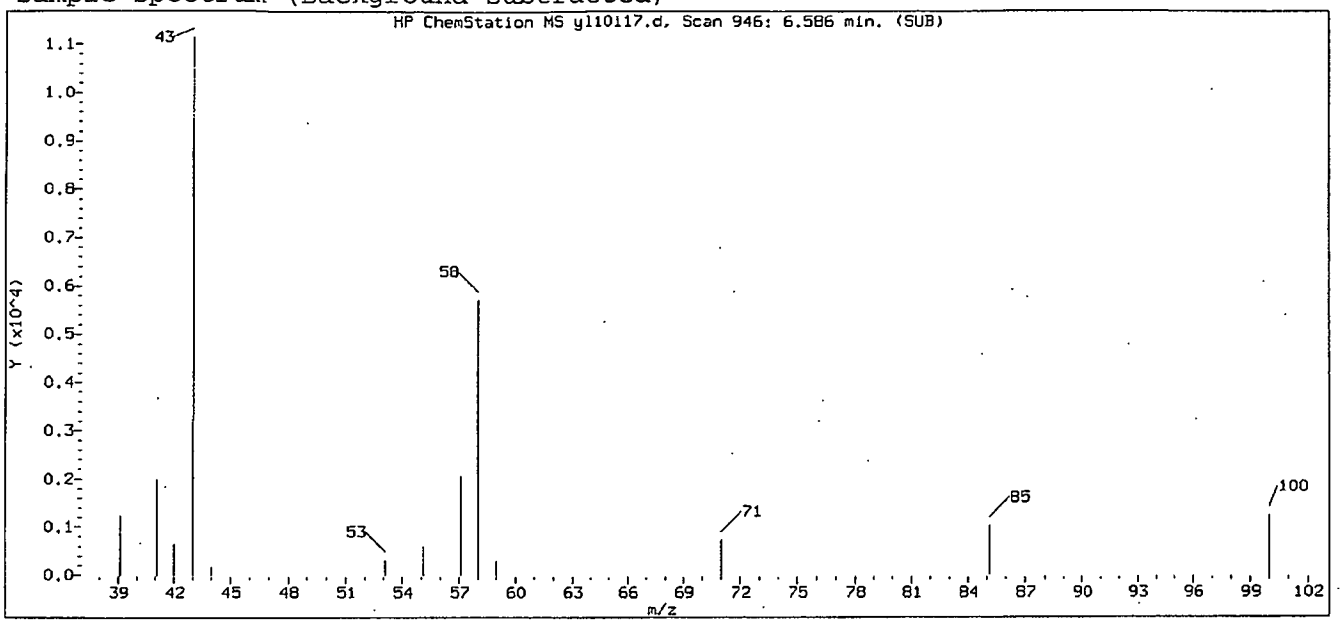
Compound Number	: 101		
Compound Name	: 2-Hexanone		
Scan Number	: 946		
Retention Time (minutes)	: 6.586		
Quant Ion	: 43.00		
Area (flag)	: 23415M		
On-Column Amount (ng)	: 1.9064		
Integration start scan	: 937	Integration stop scan:	959
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

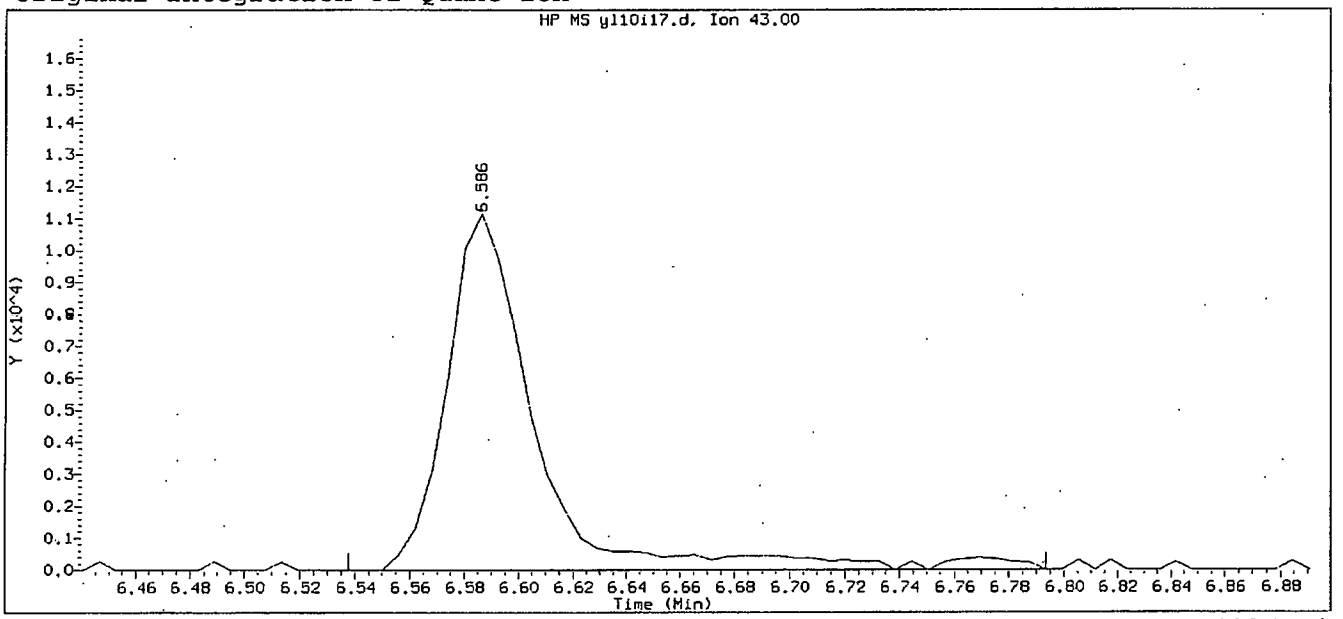
Analyst responsible for change: Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40. Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

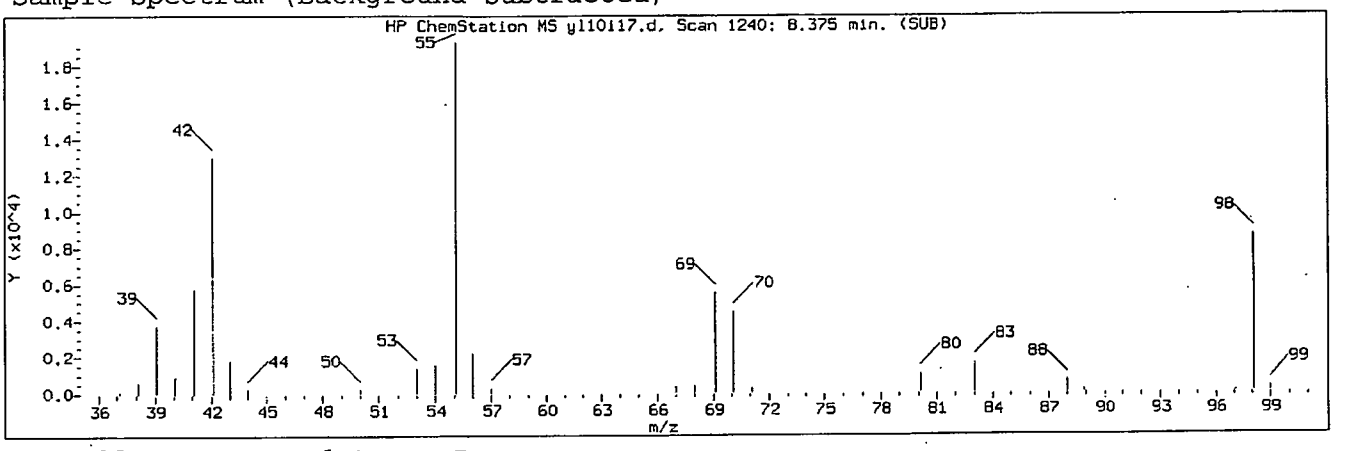
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:26
Date, time and analyst ID of latest file update: 10-Jul-2012 14:26 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

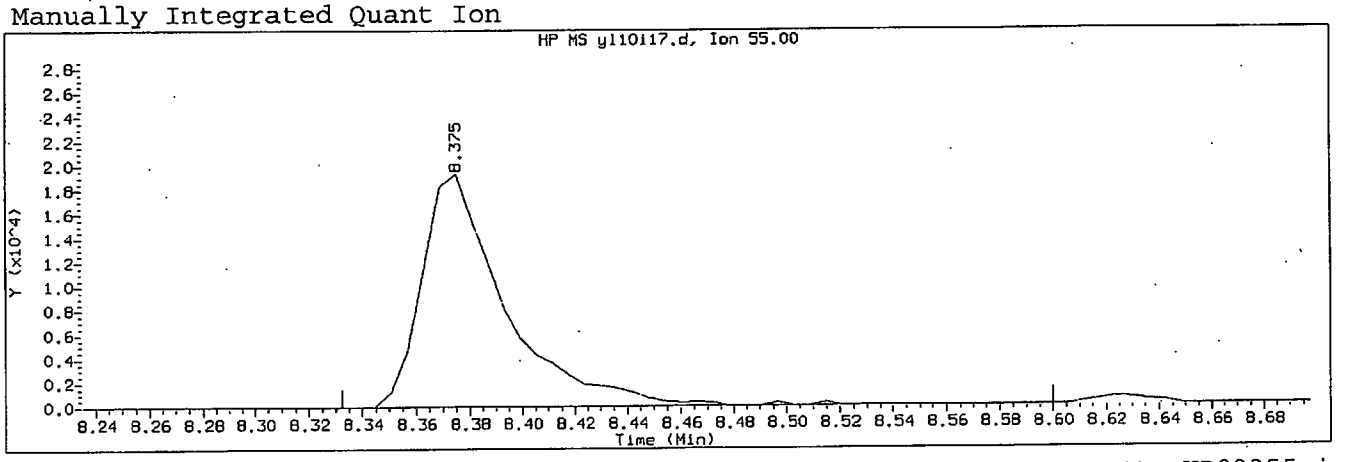
Compound Number	: 101		
Compound Name	: 2-Hexanone		
Scan Number	: 946		
Retention Time (minutes)	: 6.586		
Quant Ion	: 43.00		
Area	: 25496		
On-column Amount (ng)	: 2.0759		
Integration start scan	: 937	Integration stop scan:	979
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

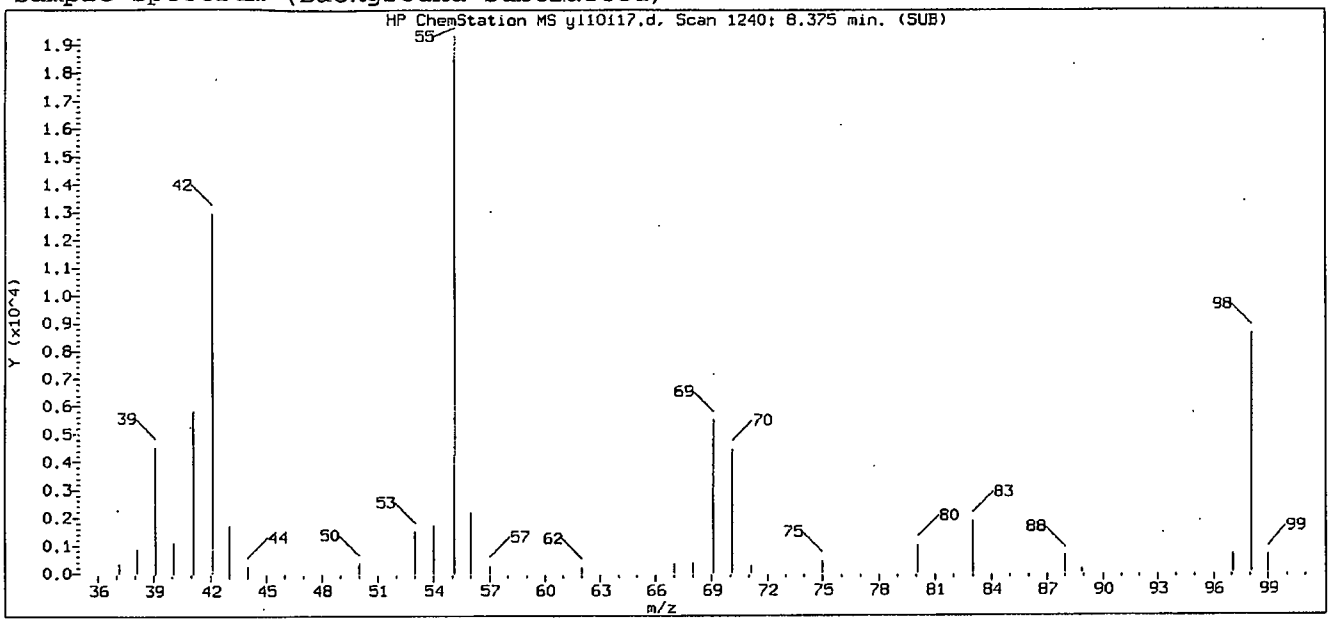
Compound Number	: 118		
Compound Name	: Cyclohexanone		
Scan Number	: 1240		
Retention Time (minutes)	: 8.375		
Quant Ion	: 55.00		
Area (flag)	: 41954M		
On-Column Amount (ng)	: 47.1671		
Integration start scan	: 1232	Integration stop scan:	1276
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

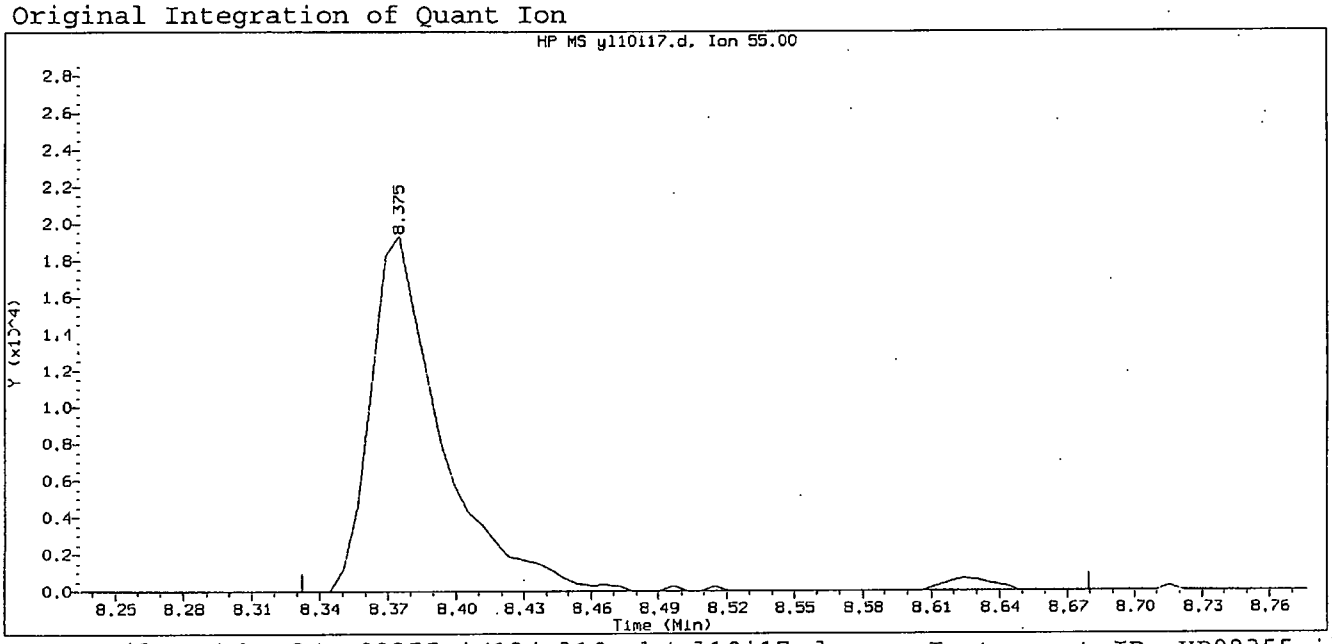
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

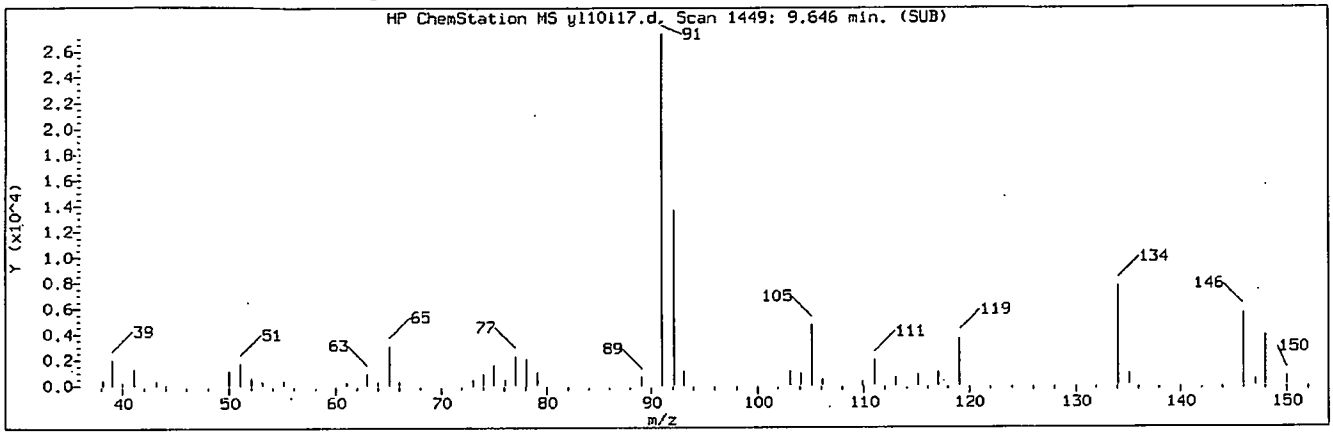
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:26
Date, time and analyst ID of latest file update: 10-Jul-2012 14:26 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

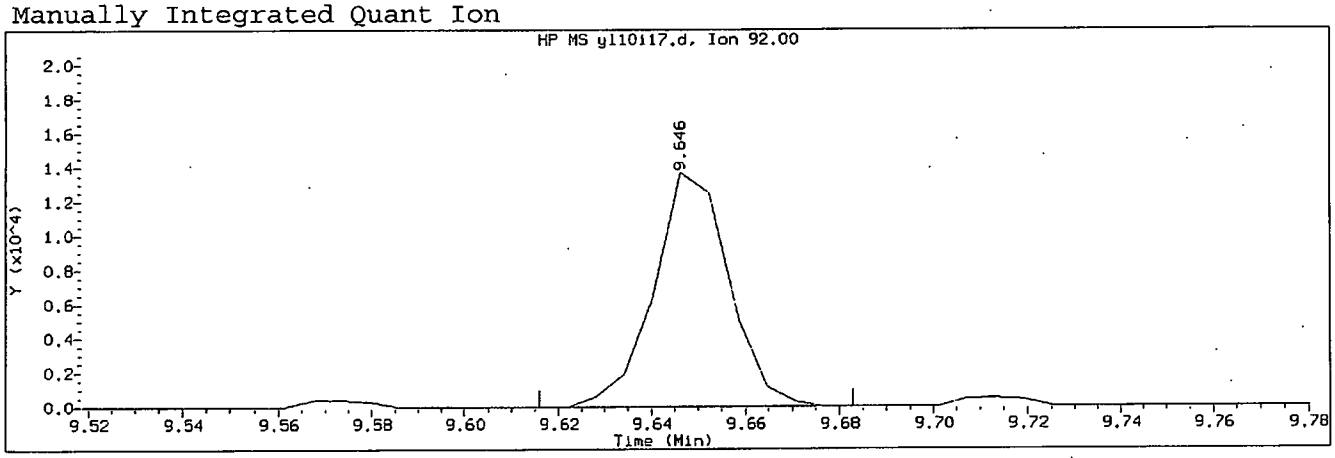
Compound Number	: 118		
Compound Name	: Cyclohexanone		
Scan Number	: 1240		
Retention Time (minutes)	: 8.375		
Quant Ion	: 55.00		
Area	: 42914		
On-column Amount (ng)	: 48.0985		
Integration start scan	: 1232	Integration stop scan:	1289
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:38
Date, time and analyst ID of latest file update: 10-Jul-2012 14:38 ads01731

Sample Name: VSTD001 Lab Sample ID: VSTD001

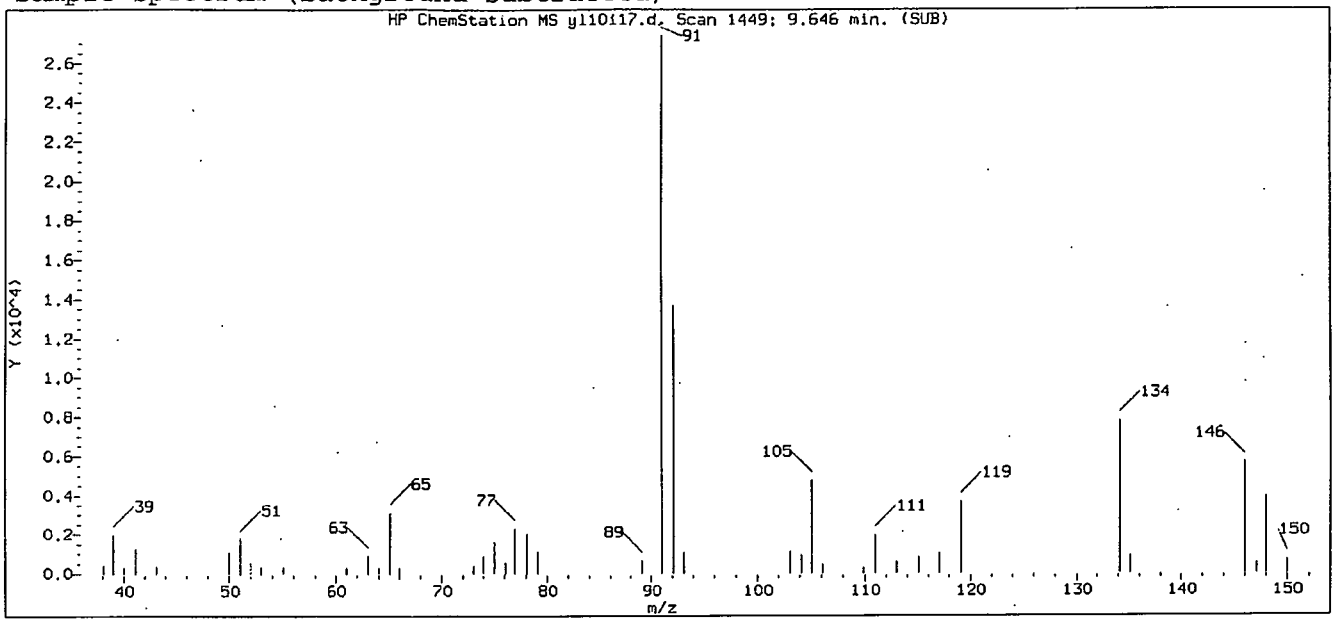
Compound Number	: 145		
Compound Name	: n-Butylbenzene		
Scan Number	: 1449		
Retention Time (minutes)	: 9.646		
Quant Ion	: 92.00		
Area (flag)	: 15188M		
On-Column Amount (ng)	: 0.9091		
Integration start scan	: 1443	Integration stop scan:	1454
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

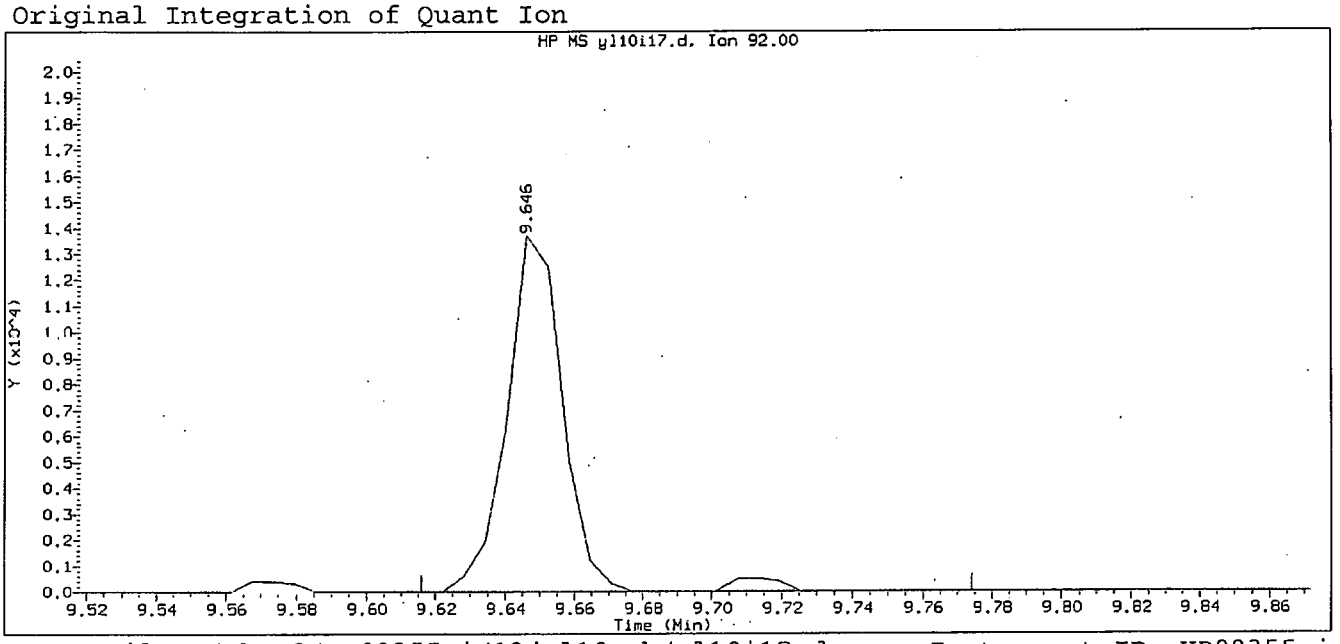
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



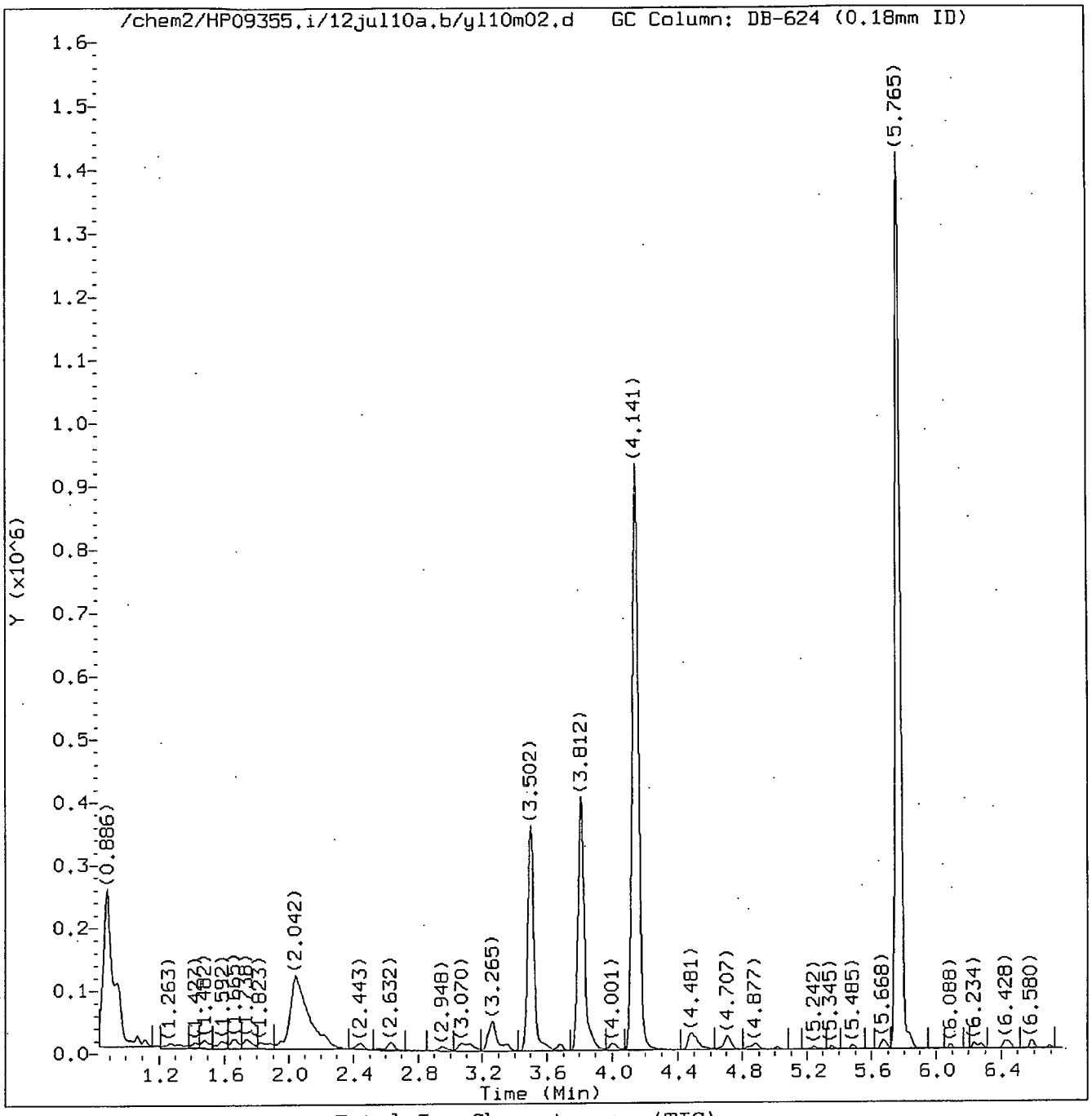
Data File: /chem2/HP09355.i/12jul10a.b/yl10i17.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:10 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260WI
Calibration date and time: 10-JUL-2012 14:26
Date, time and analyst ID of latest file update: 10-Jul-2012 14:26 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 145		
Compound Name	: n-Butylbenzene		
Scan Number	: 1449		
Retention Time (minutes)	: 9.646		
Quant Ion	: 92.00		
Area	: 15679		
On-column Amount (ng)	: 0.9386		
Integration start scan	: 1443	Integration stop scan:	1469
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Angela D. Sneeringer on 07/10/2012 at 14:40
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

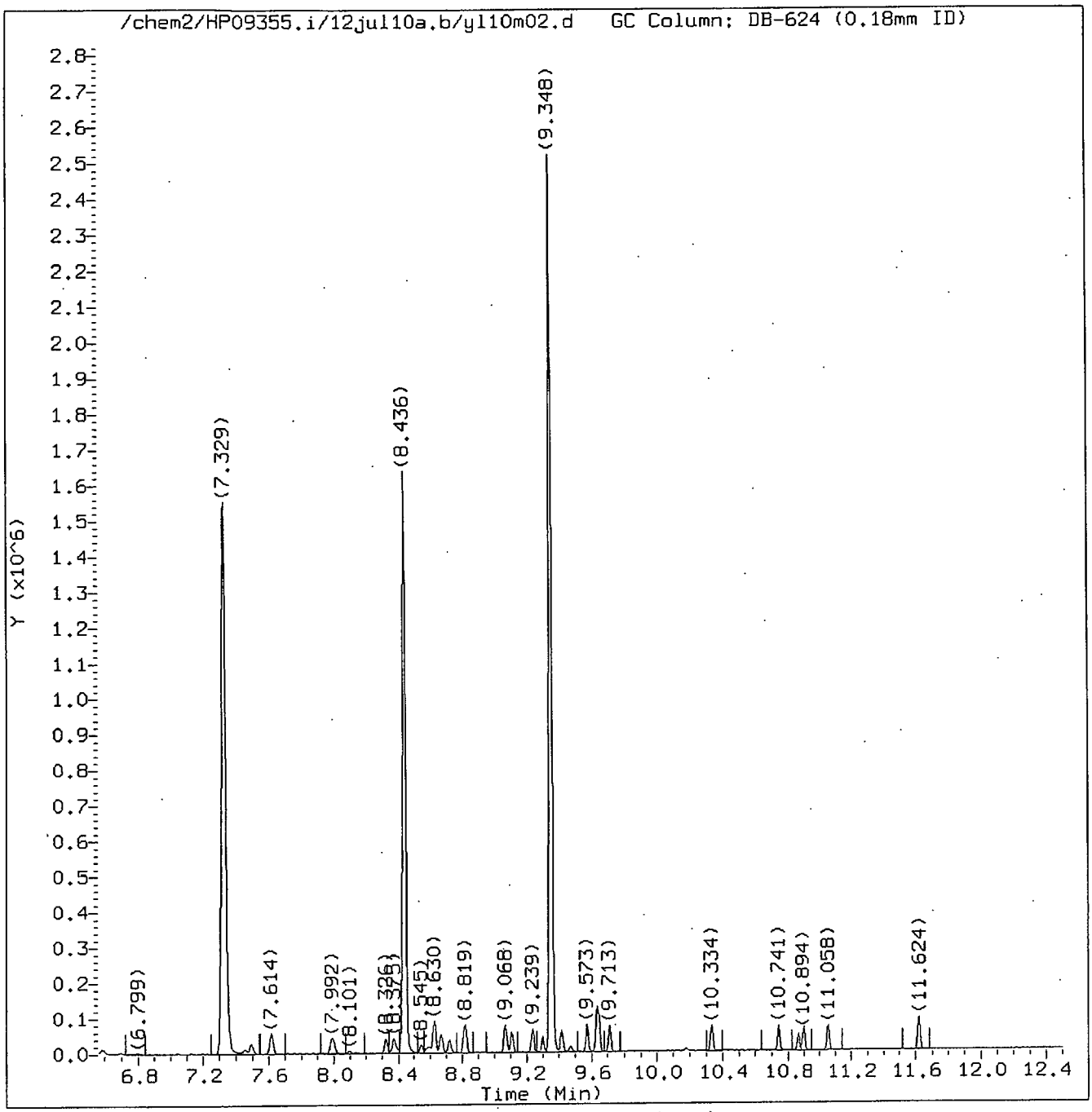
Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Digitally signed by Sara E. Johnson
on 07/10/2012 at 15:24.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d
Injection date and time: 10-JUL-2012 14:34

Instrument ID: HP09355.i
Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sublist used: 8260W

Sample Name: MDL0.5

Lab Sample ID: MDL0.5

Digitally signed by Sara E. Johnson
on 07/10/2012 at 15:24.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 11-JUL-2012 18:10
Date, time and analyst ID of latest file update: 11-Jul-2012 18:14 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.020	85	3993	0.407
3) Chloromethane	(1)	1.038	50	5511M	0.535
4) 1,3-Butadiene	(1)	1.111	39	2991M	0.424
5) Vinyl Chloride	(1)	1.117	62	4323M	0.446
7) Bromomethane	(1)	1.269	94	3005	0.506
8) Chloroethane	(1)	1.318	64	2546	0.505
9) Dichlorofluoromethane	(1)	1.427	67	6344M	0.534
11) n-Pentane	(1)	1.482	43	7213M	0.624
10) Trichlorofluoromethane	(1)	1.500	101	4117M	0.398
13) Ethyl Ether	(1)	1.592	59	3106	0.511
14) Freon 123a	(1)	1.604	67	5372	0.750
15) Acrolein	(4)	1.659	56	14151	4.788
16) 1,1-Dichloroethene	(1)	1.732	96	2617	0.478
17) Acetone	(1)	1.750	58	1810	1.276
18) Freon 113	(1)	1.762	101	2470M	0.414
21) 2-Propanol	(4)	1.823	45	18682	17.262
20) Methyl Iodide	(1)	1.835	142	4875	0.468
22) Carbon Disulfide	(1)	1.878	76	8342M	0.484
24) Allyl Chloride	(1)	1.945	41	6131	0.591
26) Methylene Chloride	(1)	2.030	84	4458	0.663
28)*t-Butyl Alcohol-d10	(4)	2.048	65	431536	250.000
29) t-Butyl Alcohol	(4)	2.109	59	22862	9.397
31) trans-1,2-Dichloroethene	(1)	2.224	96	3270	0.496
32) Methyl Tertiary Butyl Ether	(1)	2.237	73	11684	0.491
33) n-Hexane	(1)	2.450	57	8923	0.772
34) 1,1-Dichloroethane	(1)	2.559	63	5993	0.462
36) di-Isopropyl Ether	(1)	2.632	45	13535	0.530
37) 2-Chloro-1,3-Butadiene	(1)	2.638	53	5635	0.483
39) Ethyl t-Butyl Ether	(1)	2.954	59	11043	0.457
40) cis-1,2-Dichloroethene	(1)	3.058	96	3295	0.445
42) 2,2-Dichloropropane	(1)	3.070	77	4672	0.461
41) 2-Butanone	(1)	3.082	43	12791	1.569
43) Propionitrile	(4)	3.125	54	23337	8.862
46) Methacrylonitrile	(1)	3.259	67	25326	4.803
47) Bromochloromethane	(1)	3.277	128	1902	0.496
48) Tetrahydrofuran	(4)	3.319	71	2252	0.924
50) Chloroform	(1)	3.356	83	7572	0.607
52)$Dibromofluoromethane	(1)	3.502	113	279884	49.541

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 07/11/2012 at 18:15.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(1)	3.532	97	5677	0.489
56) Cyclohexane	(1)	3.581	56	7463	0.563
45) 1,2-Dichloroethene (total)	(1)		96	6565	0.941
57) 1,1-Dichloropropene	(1)	3.678	75	4322	0.440
58) Carbon Tetrachloride	(1)	3.684	117	3420M	0.400
62)$1,2-Dichloroethane-d4	(1)	3.812	102	74412	50.373
59) Isobutyl Alcohol	(4)	3.830	41	20371	27.766
63) Benzene	(1)	3.867	78	14375	0.499
65) 1,2-Dichloroethane	(1)	3.891	62	5350	0.496
69) t-Amyl Methyl Ether	(1)	4.001	73	10741	0.477
71)*Fluorobenzene	(1)	4.147	96	1222121	50.000
72) n-Heptane	(1)	4.171	43	12717	0.924
73) n-Butanol	(4)	4.481	56	29508	44.393
74) Trichloroethene	(1)	4.494	95	3198	0.436
76) Methylcyclohexane	(1)	4.707	83	9218	0.703
77) 1,2-Dichloropropane	(1)	4.719	63	3634	0.462
78) Dibromomethane	(1)	4.840	93	2233	0.450
79) 1,4-Dioxane	(4)	4.871	88	2761	15.661
80) Methyl Methacrylate	(1)	4.877	69	4226	0.503
83) Bromodichloromethane	(1)	5.011	83	3741	0.426
85) 2-Nitropropane	(1)	5.236	41	5209	1.362
86) 2-Chloroethyl Vinyl Ether	(1)	5.351	63	2740	0.416
87) cis-1,3-Dichloropropene	(1)	5.485	75	4736	0.412
89) 4-Methyl-2-Pentanone	(1)	5.674	43	15917	1.043
93)$Toluene-d8	(2)	5.765	98	1195165	49.786
94) Toluene	(2)	5.838	92	8733	0.476
95) trans-1,3-Dichloropropene	(2)	6.088	75	4572	0.406
96) Ethyl Methacrylate	(2)	6.234	69	6023	0.457
97) 1,1,2-Trichloroethane	(2)	6.282	97	3196	0.456
98) Tetrachloroethene	(2)	6.428	166	4356	0.517
99) 1,3-Dichloropropane	(2)	6.446	76	5966	0.476
101) 2-Hexanone	(2)	6.580	43	12065	0.972
102) Dibromochloromethane	(2)	6.690	129	2684	0.390
104) 1,2-Dibromoethane	(2)	6.799	107	3439	0.447
106)*Chlorobenzene-d5	(2)	7.329	117	881792	50.000
107) Chlorobenzene	(2)	7.359	112	10756	0.520
108) 1,1,1,2-Tetrachloroethane	(2)	7.456	131	3006	0.440
109) Ethylbenzene	(2)	7.493	91	19347	0.540

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on 07/10/2012 at 15:24
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
110) m+p-Xylene	(2)	7.621	106	15567	1.116
113) o-Xylene	(2)	7.986	106	7415	0.538
114) Styrene	(2)	7.998	104	11662	0.496
115) Bromoform	(2)	8.138	173	1950	0.344
112) Xylene (Total)	(2)		106	22982	1.655
116) Isopropylbenzene	(2)	8.326	105	23873	0.665
118) Cyclohexanone	(4)	8.375	55	20161	23.401
119)$4-Bromofluorobenzene	(2)	8.436	95	449462	50.164
121) Bromobenzene	(3)	8.551	156	5380	0.571
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	6035	0.500
123) 1,2,3-Trichloropropane	(3)	8.600	110	1930	0.495
124) trans-1,4-Dichloro-2-Butene	(3)	8.630	53	16625	4.001
125) n-Propylbenzene	(3)	8.667	91	31904	0.768
126) 2-Chlorotoluene	(3)	8.722	126	5491	0.633
128) 4-Chlorotoluene	(3)	8.813	126	5863	0.646
127) 1,3,5-Trimethylbenzene	(3)	8.819	105	23605	0.768
131) Pentachloroethane	(3)	9.068	167	2675	0.488
130) tert-Butylbenzene	(3)	9.068	134	5566	0.800
132) 1,2,4-Trimethylbenzene	(3)	9.105	105	23966	0.757
133) sec-Butylbenzene	(3)	9.239	105	33985	0.889
134) 1,3-Dichlorobenzene	(3)	9.300	146	13662	0.758
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	513014	50.000
135) p-Isopropyltoluene	(3)	9.354	119	30909	0.900
138) 1,4-Dichlorobenzene	(3)	9.367	146	14382	0.777
139) 1,2,3-Trimethylbenzene	(3)	9.415	105	24041	0.748
141) Benzyl Chloride	(3)	9.470	91	9662	0.387
142) 1,3-Diethylbenzene	(3)	9.573	119	17474	0.853
143) 1,4-Diethylbenzene	(3)	9.634	119	19935	0.939
144) 1,2-Dichlorobenzene	(3)	9.634	146	12895	0.747
145) n-Butylbenzene	(3)	9.646	92	15957M	0.951
146) 1,2-Diethylbenzene	(3)	9.713	119	15555	0.903
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	1503	0.450
149) 1,3,5-Trichlorobenzene	(3)	10.334	180	17180	1.201
150) 1,2,4-Trichlorobenzene	(3)	10.741	180	16784	1.247
151) Hexachlorobutadiene	(3)	10.863	225	6937	1.034
152) Naphthalene	(3)	10.900	128	38585	0.887
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	17310	1.305
154) 2-Methylnaphthalene	(3)	11.624	142	33723	1.267

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on 07/10/2012 at 15:24.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)

M = Compound was manually integrated.
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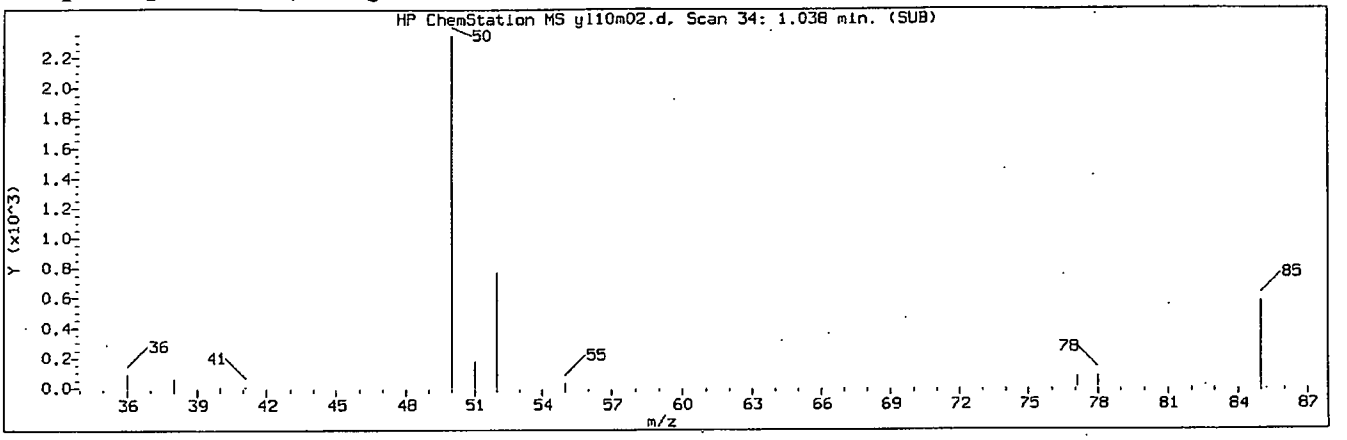
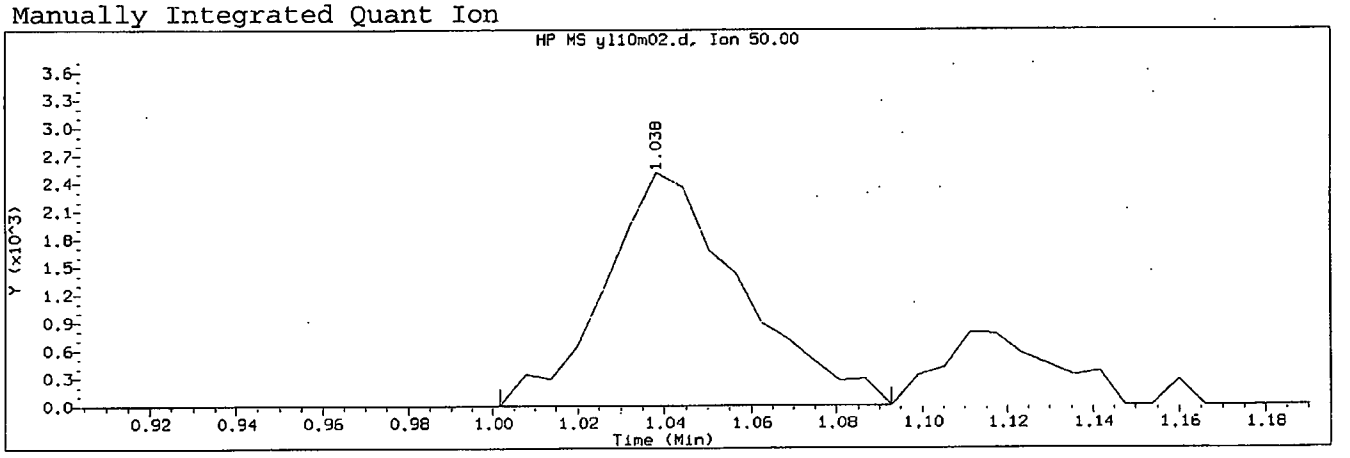
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

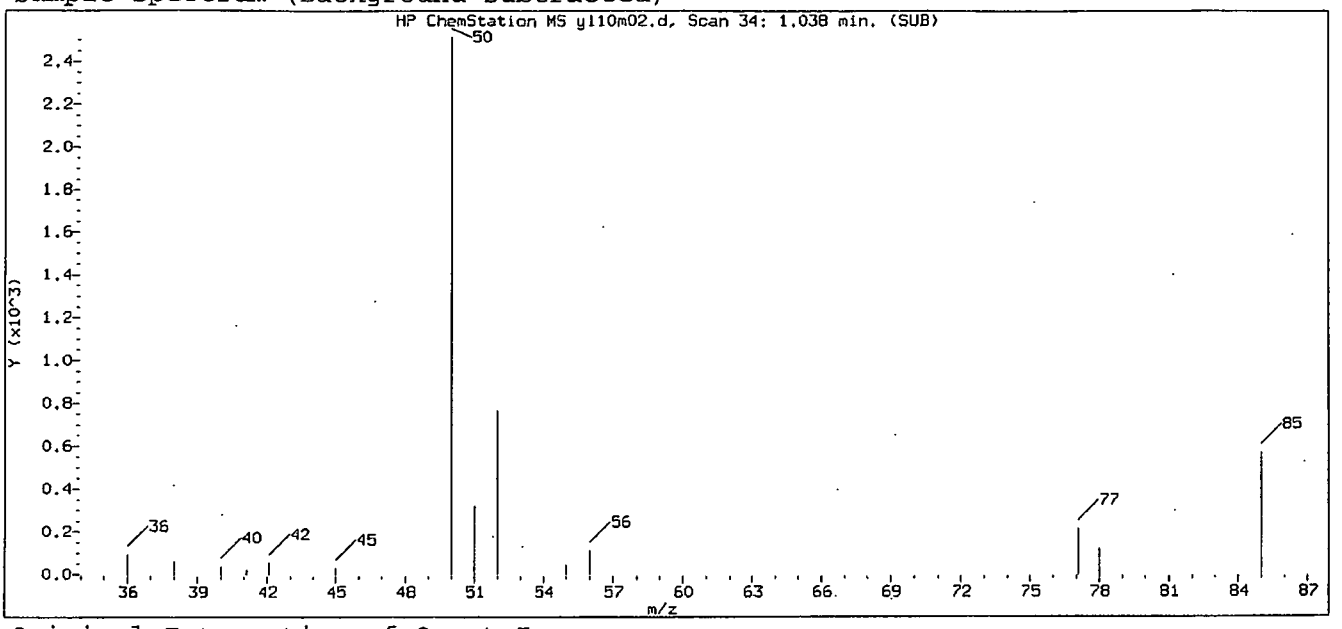
Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 34		
Retention Time (minutes)	: 1.038		
Quant Ion	: 50.00		
Area (flag)	: 5511M		
On-Column Amount (ng)	: 0.5348		
Integration start scan	: 27	Integration stop scan:	42
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

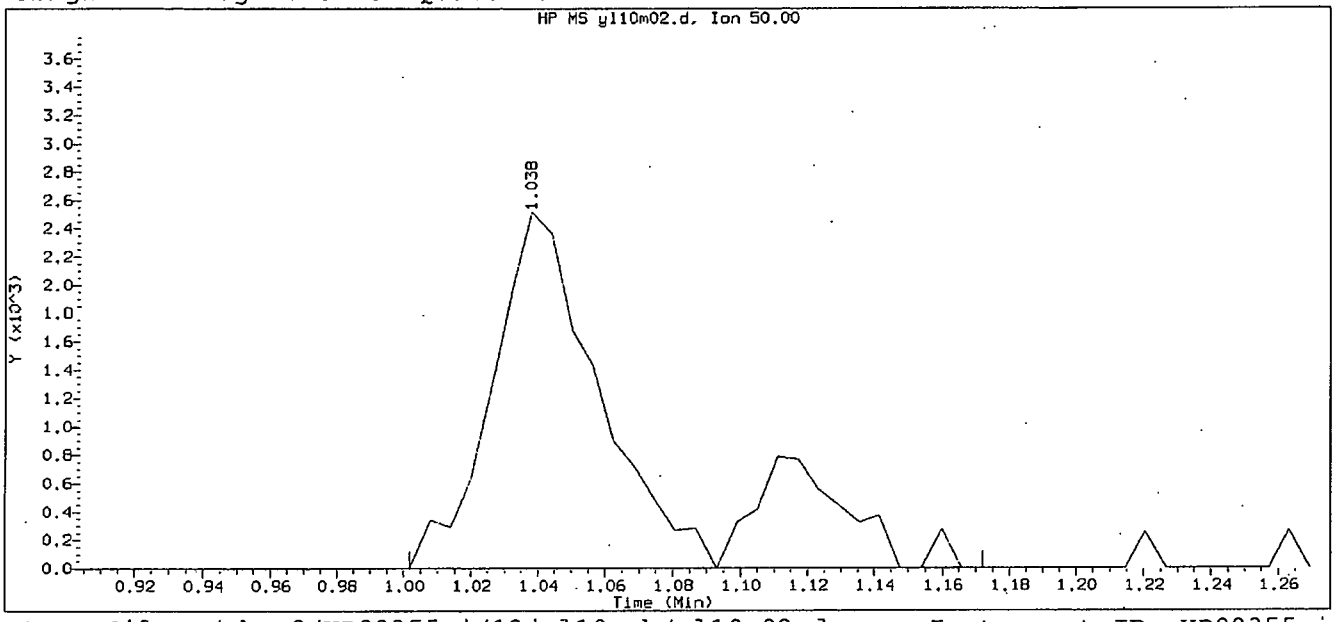
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 07/10/2012 at 15:24
Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 14:49 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 34		
Retention Time (minutes)	: 1.038		
Quant Ion	: 50.00		
Area	: 7071		
On-column Amount (ng)	: 0.6863		
Integration start scan	: 27	Integration stop scan:	55
Y at integration start	: 0	Y at integration end:	0

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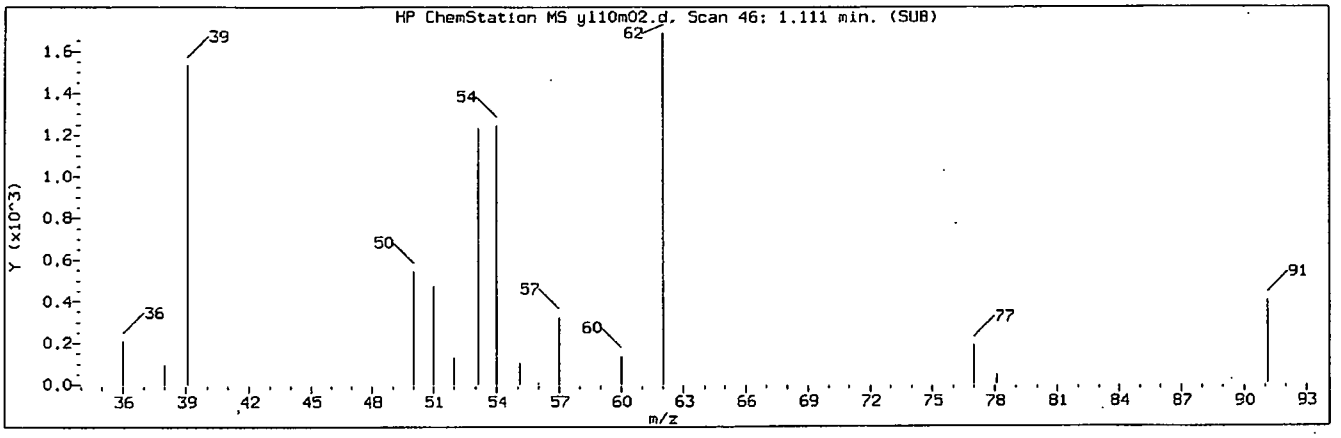
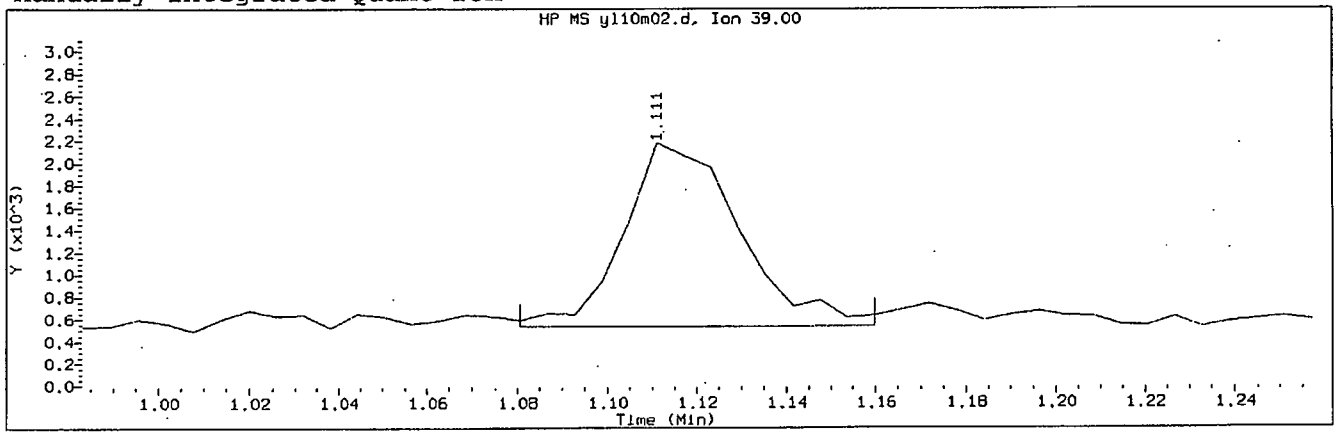
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

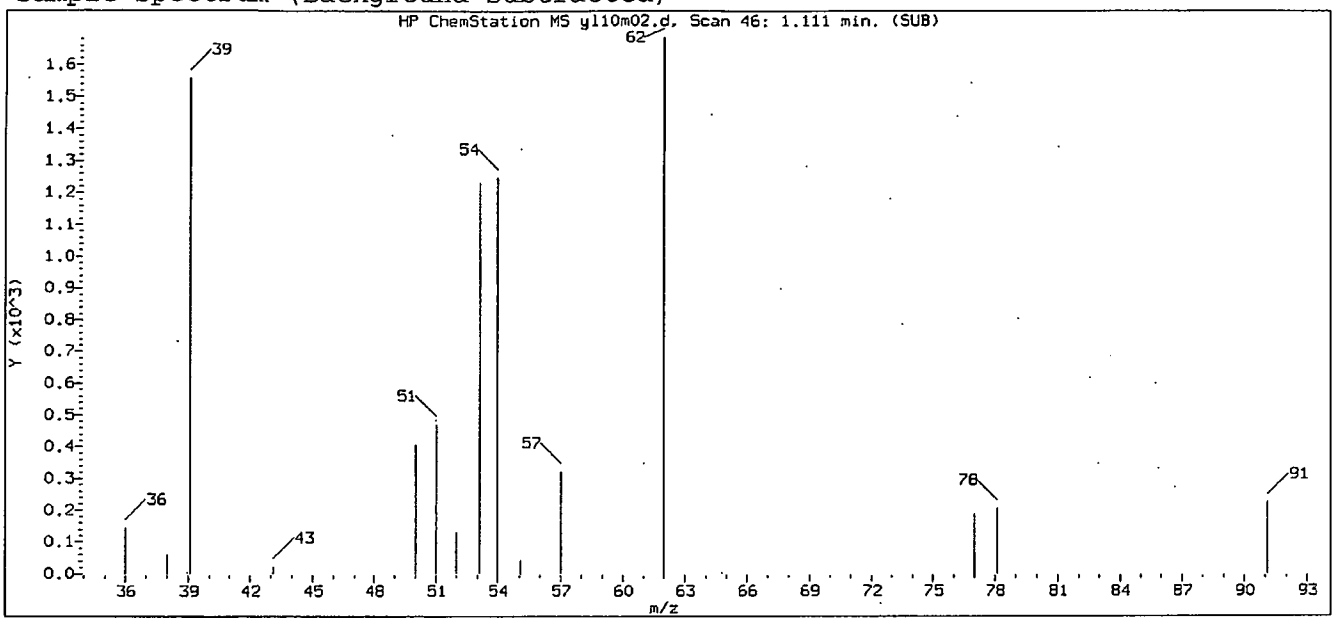
Compound Number	: 4		
Compound Name	: 1,3-Butadiene		
Scan Number	: 46		
Retention Time (minutes)	: 1.111		
Quant Ion	: 39.00		
Area (flag)	: 2991M		
On-Column Amount (ng)	: 0.4236		
Integration start scan	: 40	Integration stop scan:	53
Y at integration start	: 535	Y at integration end:	535

Reason for manual integration: improper integration

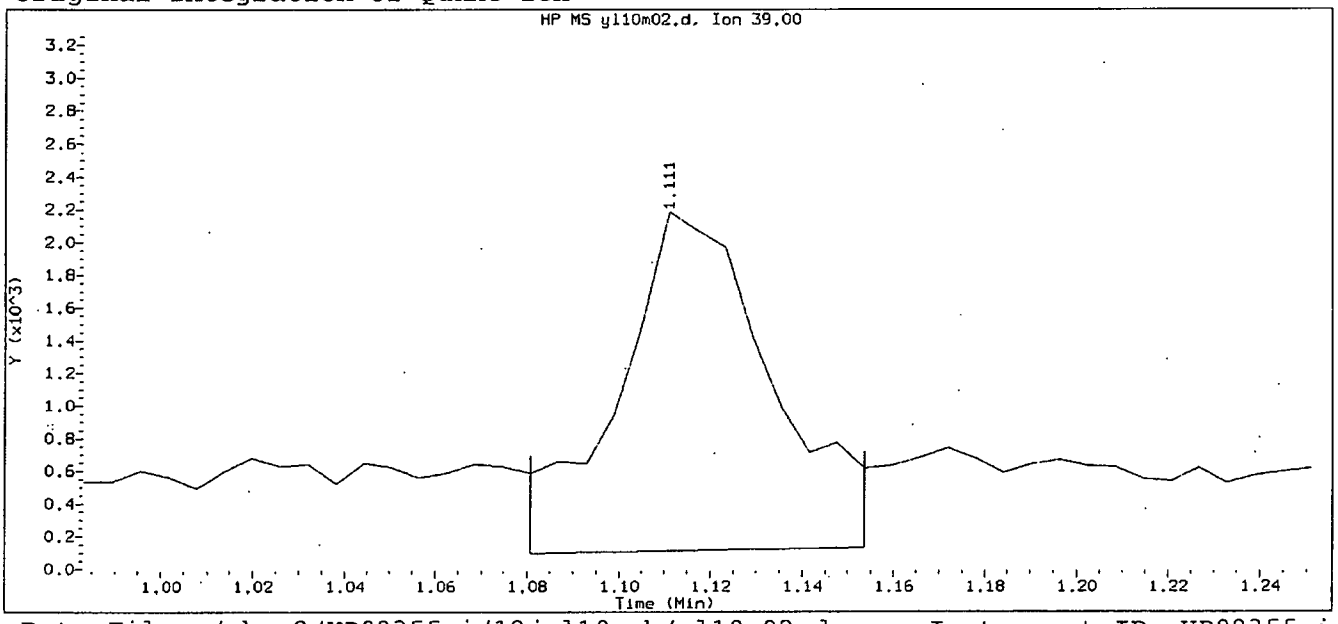
Analyst responsible for change: Digitally signed by Sara E. Johnson on 07/10/2012 at 15:24. Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 14:49 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compound Number	: 4		
Compound Name	: 1,3-Butadiene		
Scan Number	: 46		
Retention Time (minutes)	: 1.111		
Quant Ion	: 39.00		
Area	: 4775		
On-column Amount (ng)	: 0.6763		
Integration start scan	: 40	Integration stop scan:	52
Y at integration start	: 96	Y at integration end:	132

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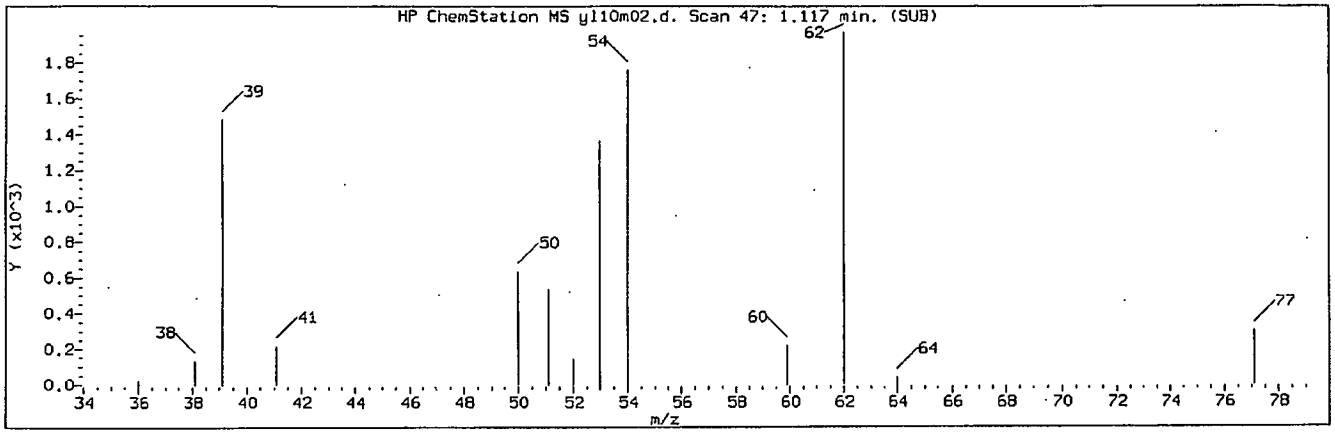
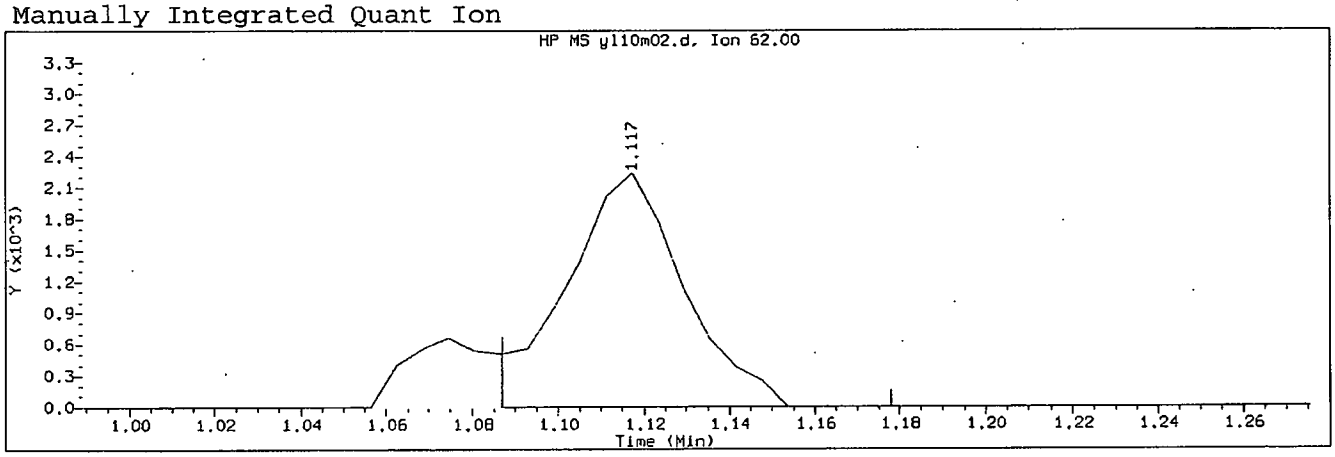
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

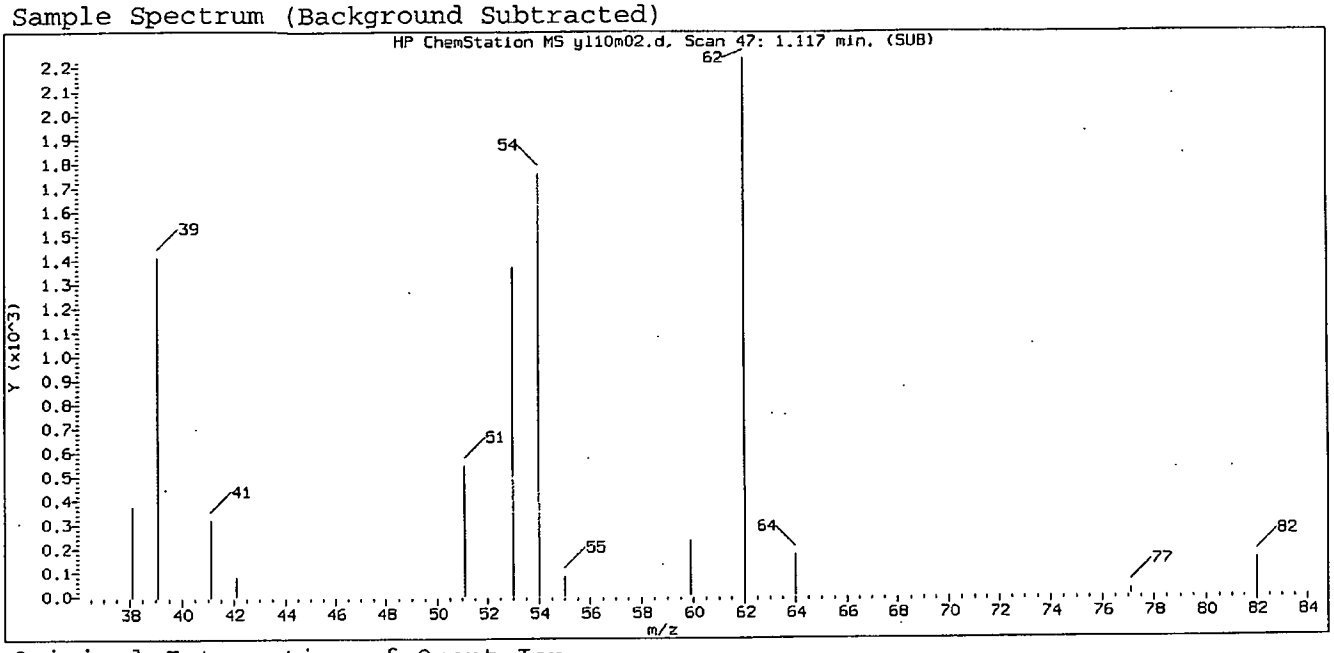
Compound Number	: 5		
Compound Name	: Vinyl Chloride		
Scan Number	: 47		
Retention Time (minutes)	: 1.117		
Quant Ion	: 62.00		
Area (flag)	: 4323M		
On-Column Amount (ng)	: 0.4458		
Integration start scan	: 41	Integration stop scan:	56
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

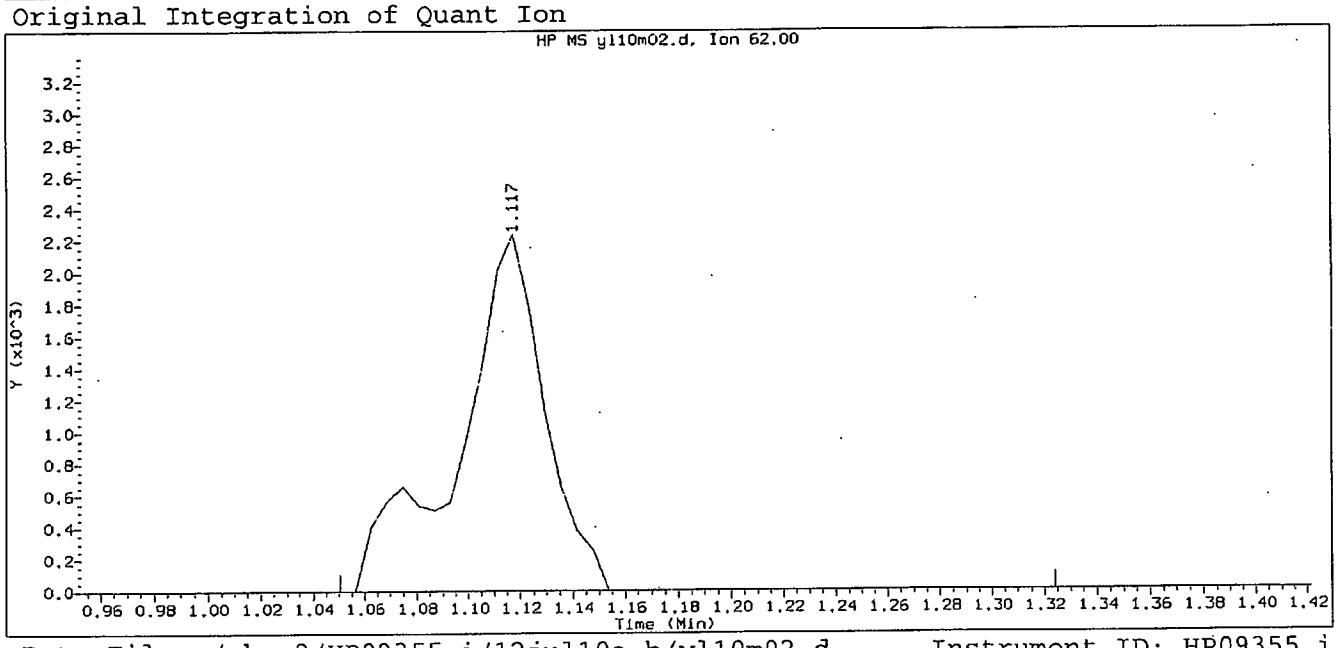
Analyst responsible for change: Digitally signed by Sara E. Johnson on 07/10/2012 at 15:24. Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

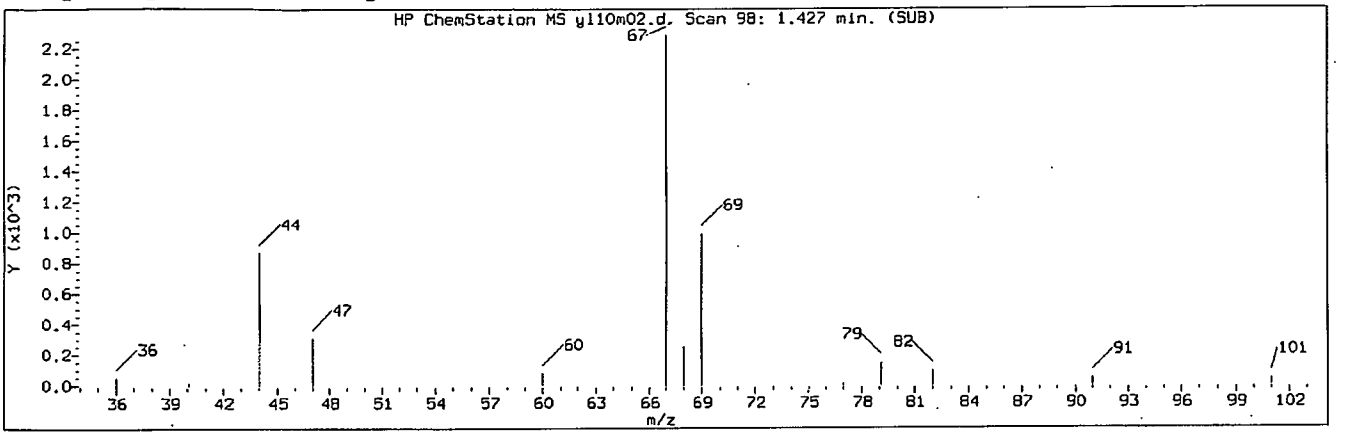
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 14:49 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

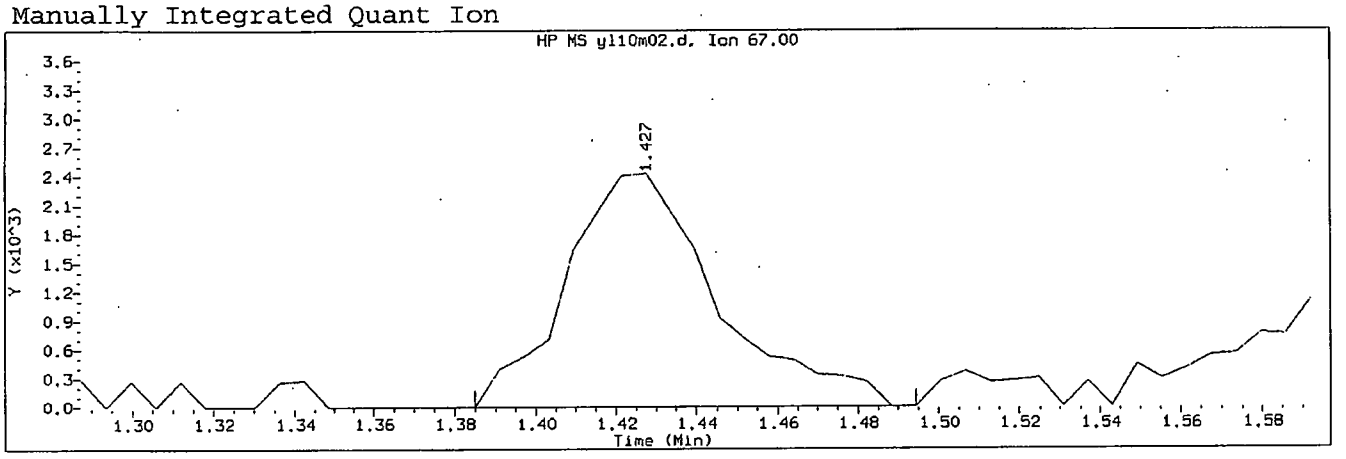
Compound Number	: 5		
Compound Name	: Vinyl Chloride		
Scan Number	: 47		
Retention Time (minutes)	: 1.117		
Quant Ion	: 62.00		
Area	: 5111		
On-column Amount (ng)	: 0.5271		
Integration start scan	: 35	Integration stop scan:	80
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sara E. Johnson on 07/10/2012 at 15:24.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

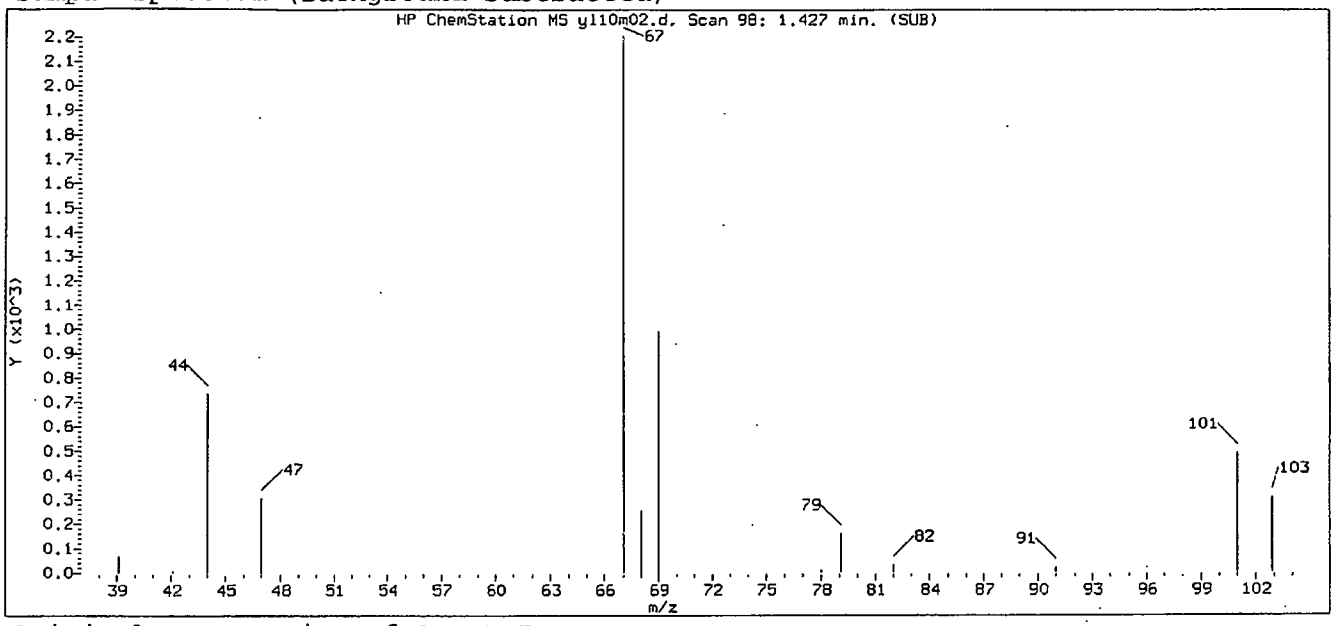
Compound Number	: 9		
Compound Name	: Dichlorofluoromethane		
Scan Number	: 98		
Retention Time (minutes)	: 1.427		
Quant Ion	: 67.00		
Area (flag)	: 6344M		
On-Column Amount (ng)	: 0.5337		
Integration start scan	: 90	Integration stop scan:	108
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

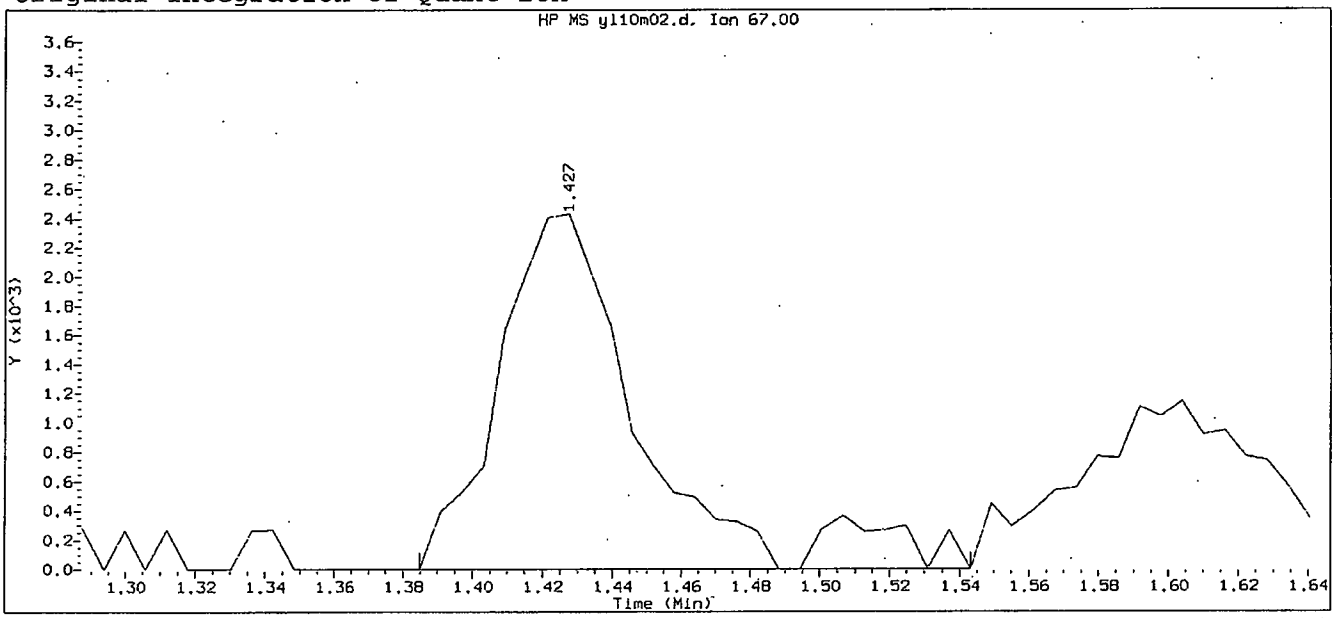
Analyst responsible for change: Digitally signed by Sara E. Johnson on 07/10/2012 at 15:24. Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

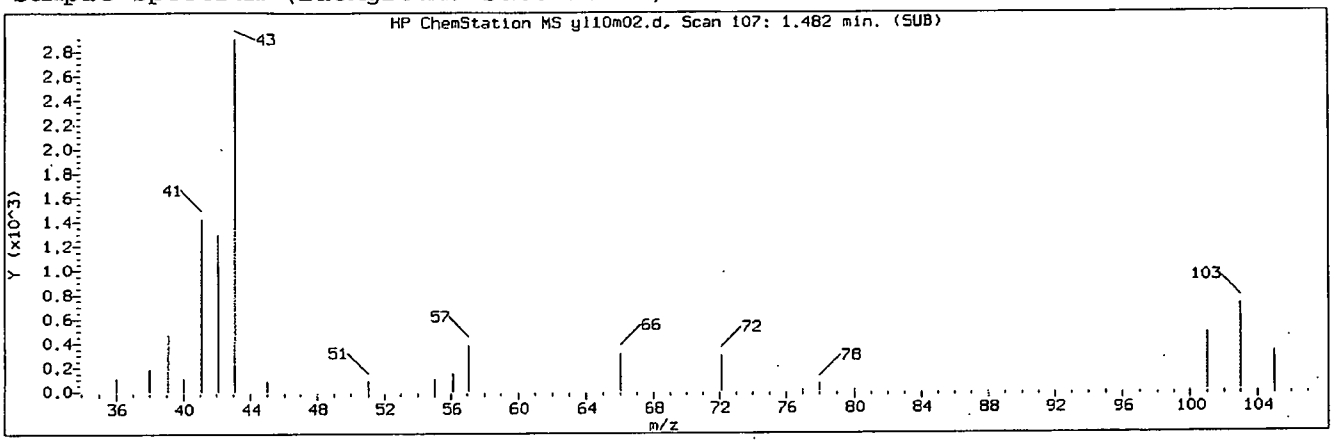
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 14:49 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

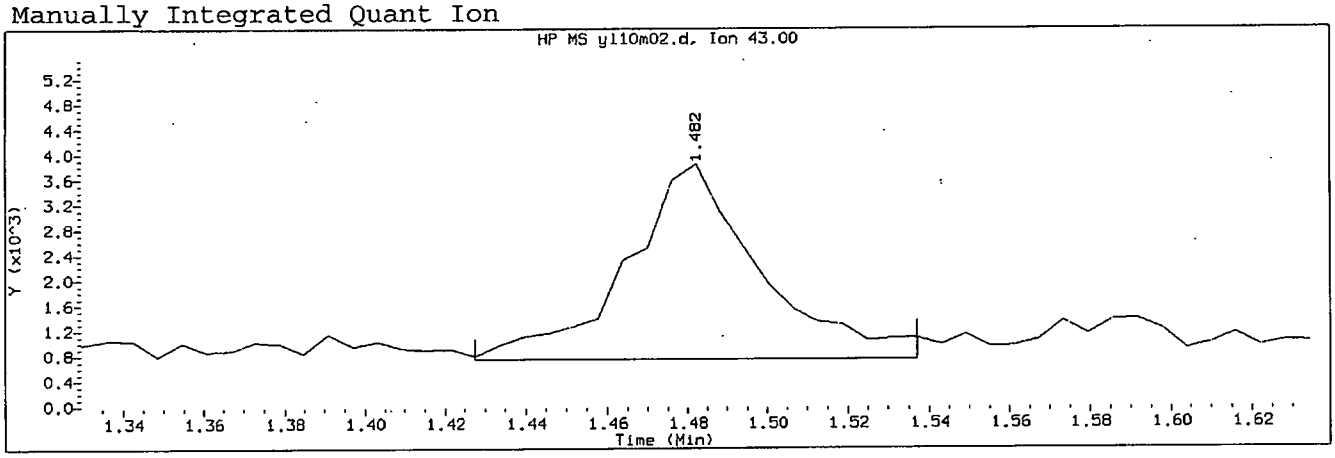
Compound Number	: 9		
Compound Name	: Dichlorofluoromethane		
Scan Number	: 98		
Retention Time (minutes)	: 1.427		
Quant Ion	: 67.00		
Area	: 6973		
On-column Amount (ng)	: 0.5867		
Integration start scan	: 90	Integration stop scan:	116
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sara E. Johnson on 07/10/2012 at 15:24
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

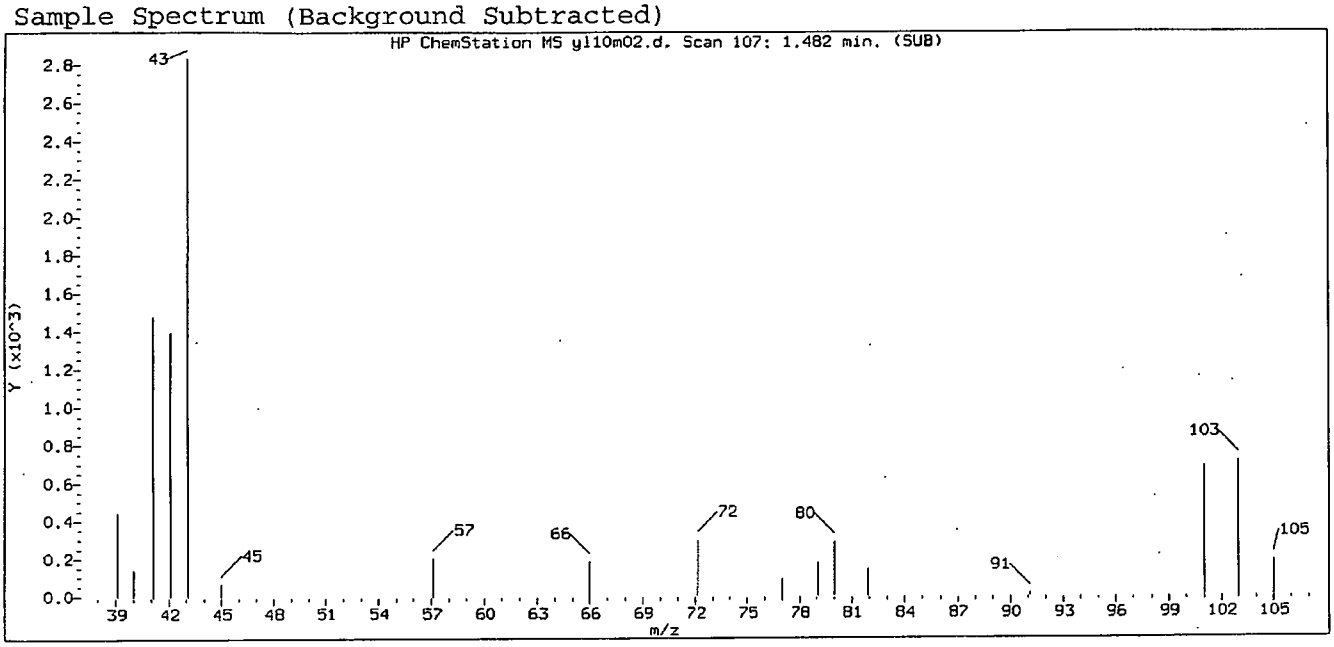
Compound Number	: 11		
Compound Name	: n-Pentane		
Scan Number	: 107		
Retention Time (minutes)	: 1.482		
Quant Ion	: 43.00		
Area (flag)	: 7213M		
On-Column Amount (ng)	: 0.6241		
Integration start scan	: 97	Integration stop scan:	115
Y at integration start	: 741	Y at integration end:	741

Reason for manual integration: improper integration

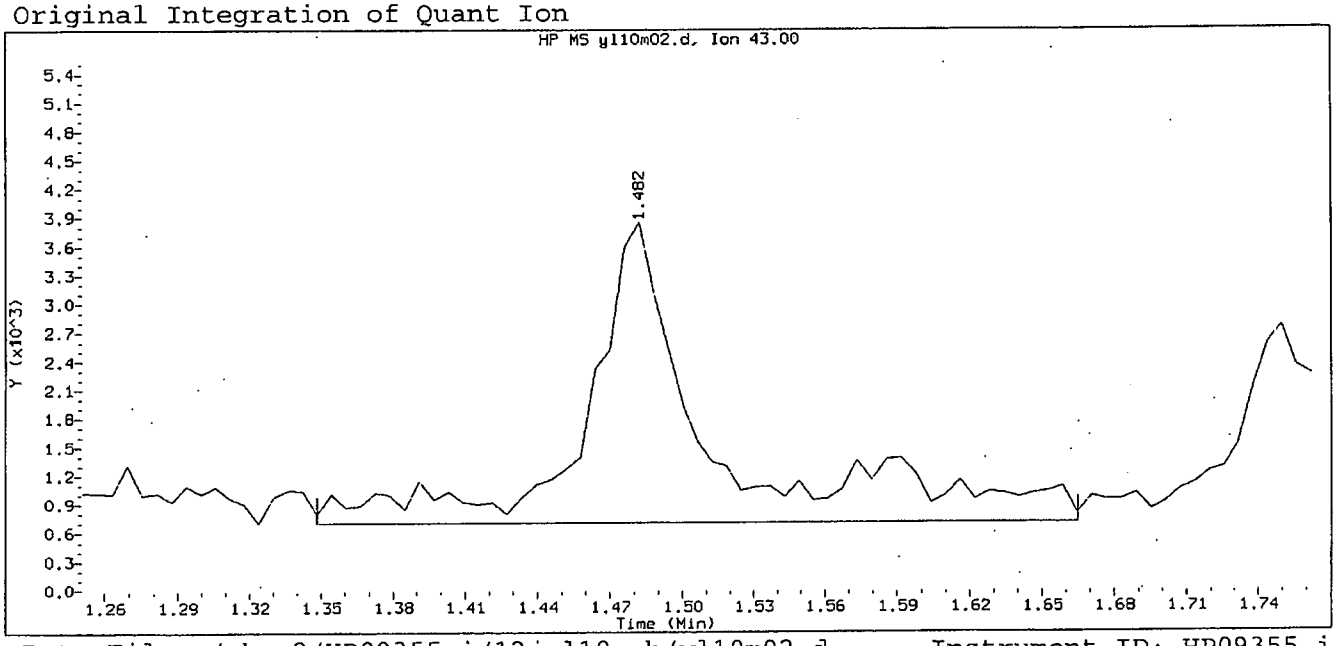
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 07/10/2012 at 15:24
Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 14:49 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compound Number	: 11		
Compound Name	: n-Pentane		
Scan Number	: 107		
Retention Time (minutes)	: 1.482		
Quant Ion	: 43.00		
Area	: 11338		
On-column Amount (ng)	: 0.9811		
Integration start scan	: 84	Integration stop scan:	136
Y at integration start	: 704	Y at integration end:	704

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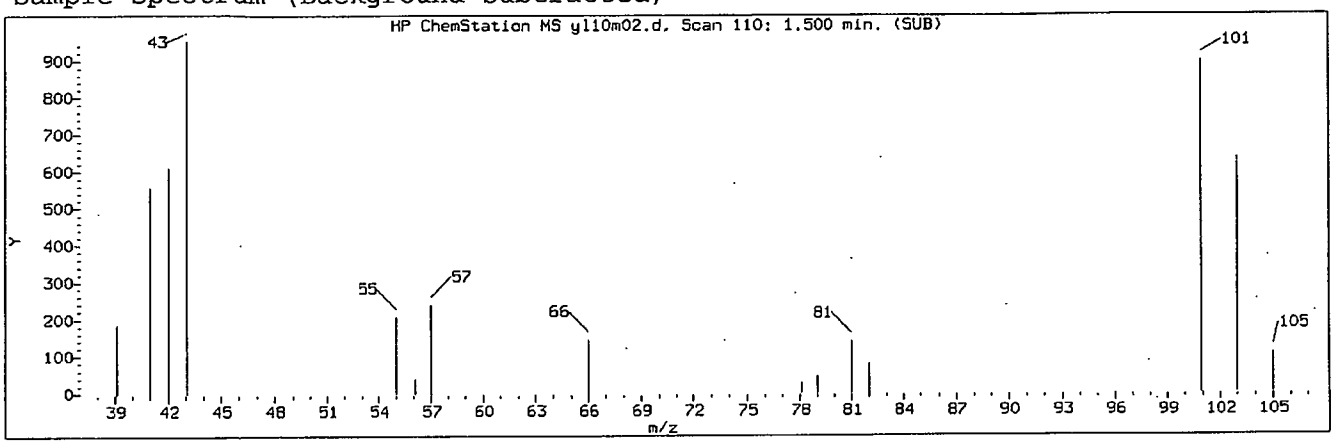
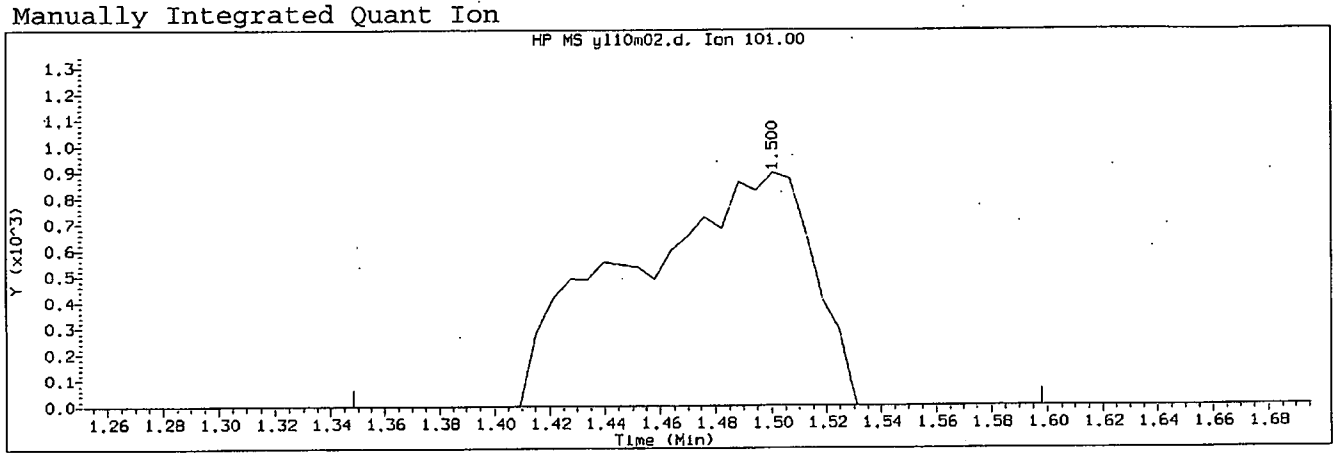
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

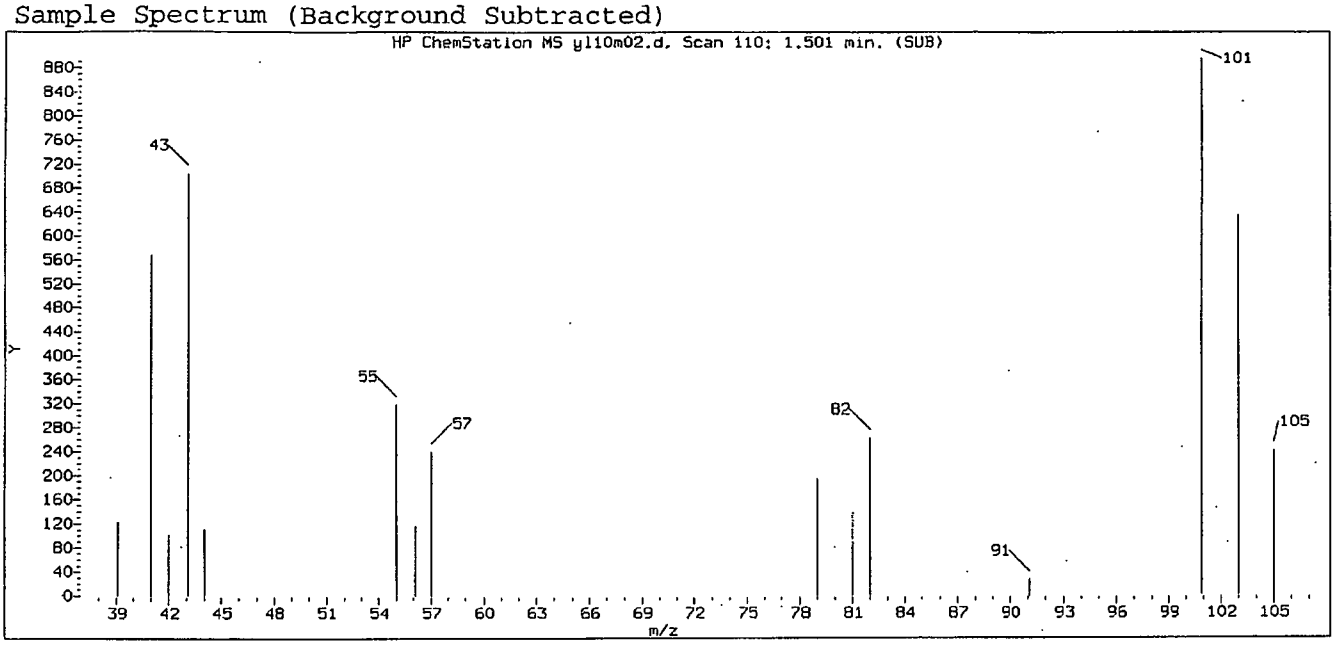
Compound Number	: 10		
Compound Name	: Trichlorofluoromethane		
Scan Number	: 110		
Retention Time (minutes)	: 1.500		
Quant Ion	: 101.00		
Area (flag)	: 4117M		
On-Column Amount (ng)	: 0.3985		
Integration start scan	: 84	Integration stop scan:	125
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

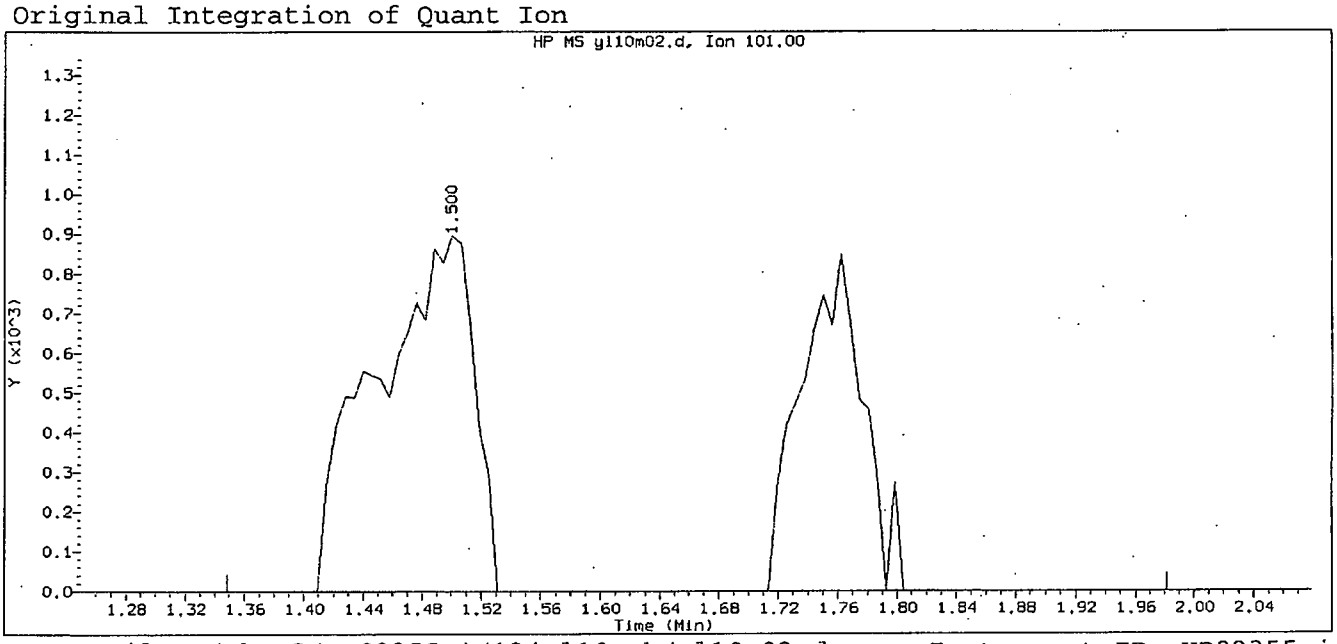
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 07/10/2012 at 15:24
Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 14:49 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compound Number	: 10		
Compound Name	: Trichlorofluoromethane		
Scan Number	: 110		
Retention Time (minutes)	: 1.500		
Quant Ion	: 101.00		
Area	: 6588		
On-column Amount (ng)	: 0.6377		
Integration start scan	: 84	Integration stop scan:	188
Y at integration start	: 0	Y at integration end:	0

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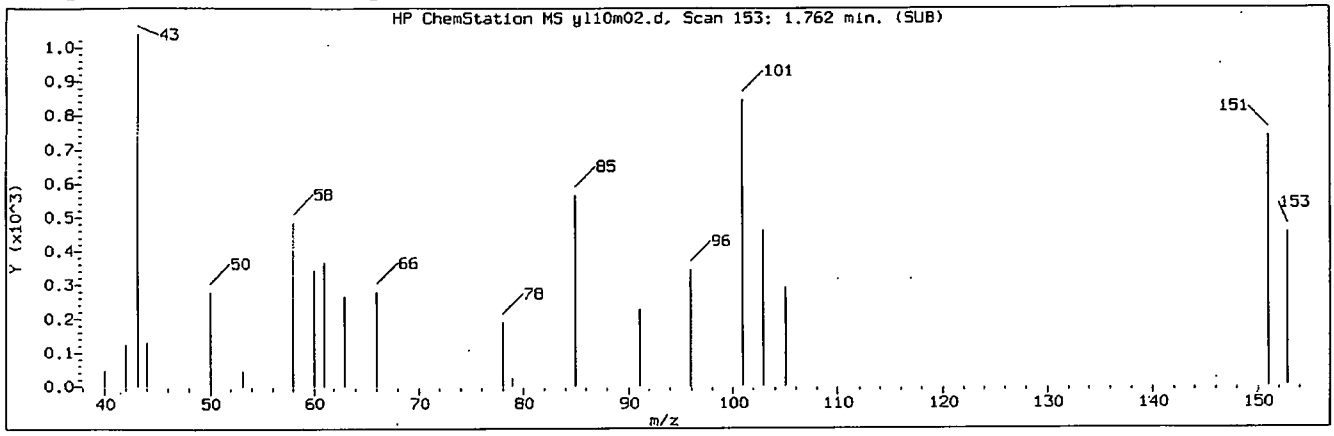
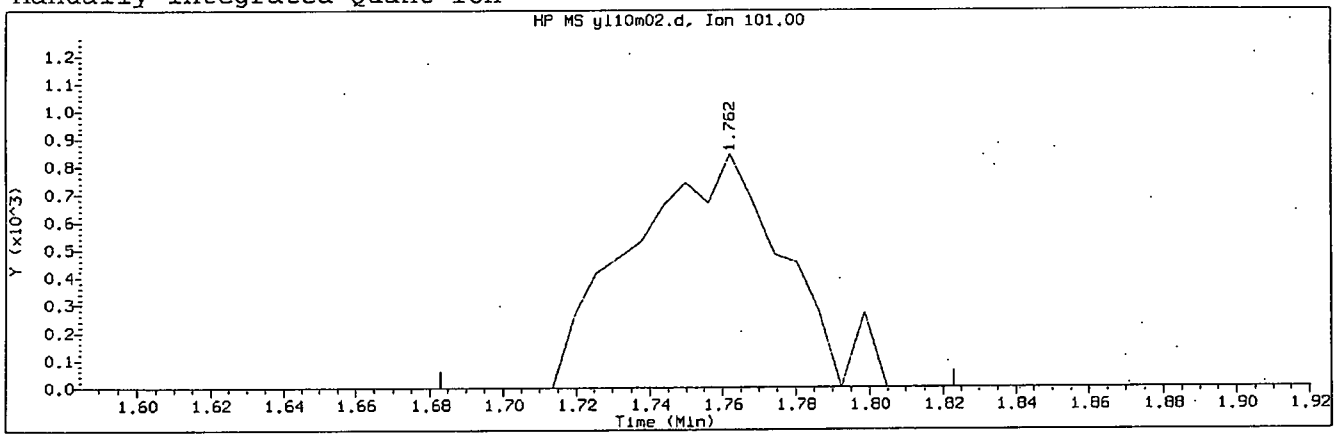
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

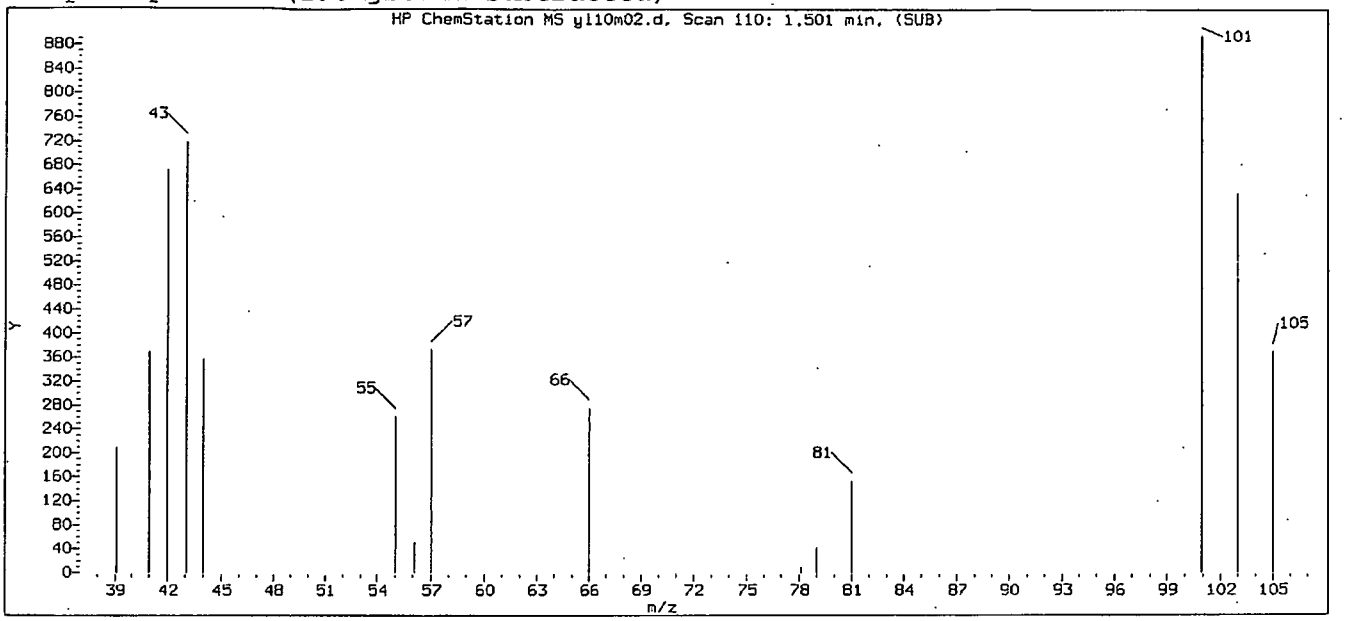
Compound Number	: 18		
Compound Name	: Freon 113		
Scan Number	: 153		
Retention Time (minutes)	: 1.762		
Quant Ion	: 101.00		
Area (flag)	: 2470M		
On-Column Amount (ng)	: 0.4141		
Integration start scan	: 139	Integration stop scan:	162
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

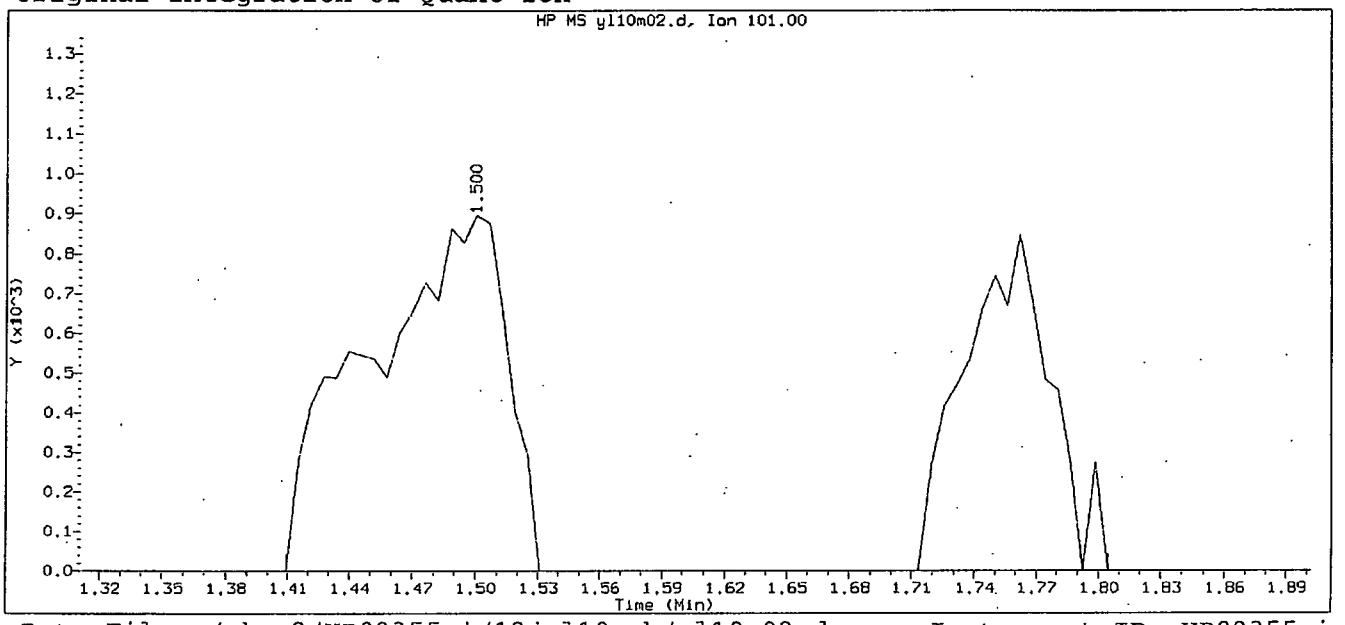
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 07/10/2012 at 15:24.
Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

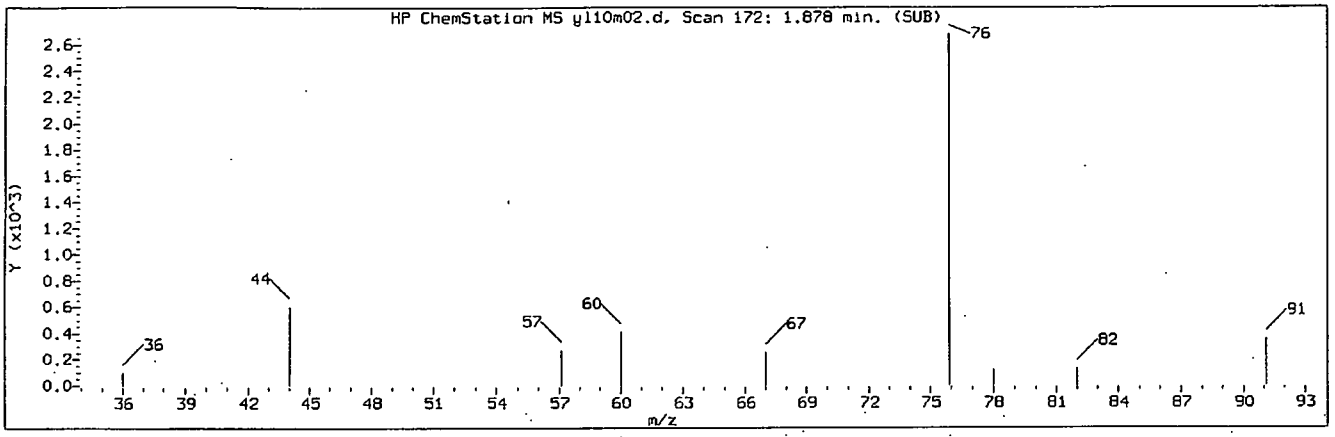
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 14:49 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

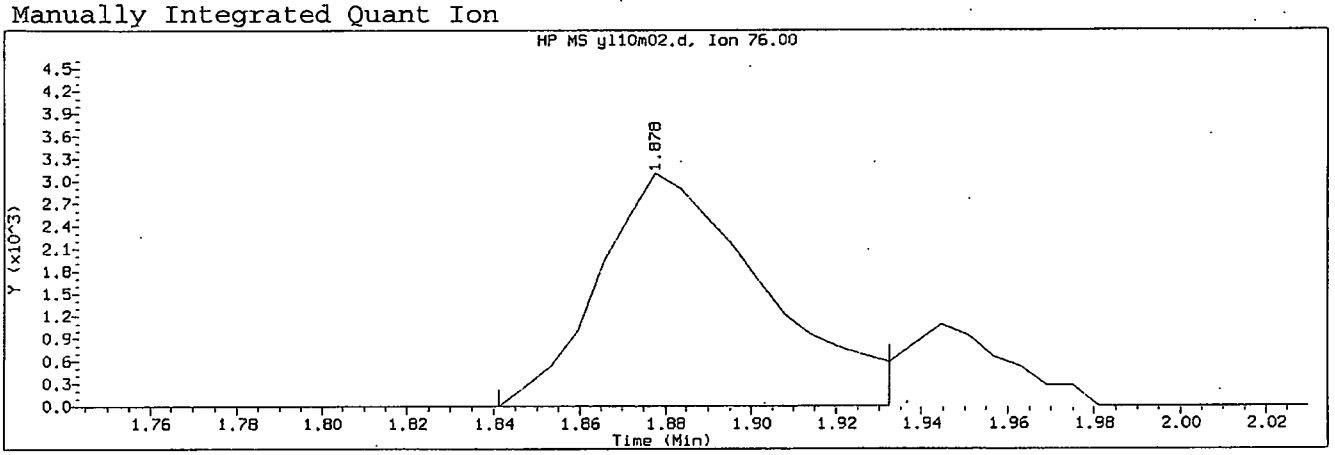
Compound Number	: 18		
Compound Name	: Freon 113		
Scan Number	: 110		
Retention Time (minutes)	: 1.500		
Quant Ion	: 101.00		
Area	: 6588		
On-column Amount (ng)	: 1.1044		
Integration start scan	: 94	Integration stop scan:	159
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sara E. Johnson on 07/10/2012 at 15:24
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

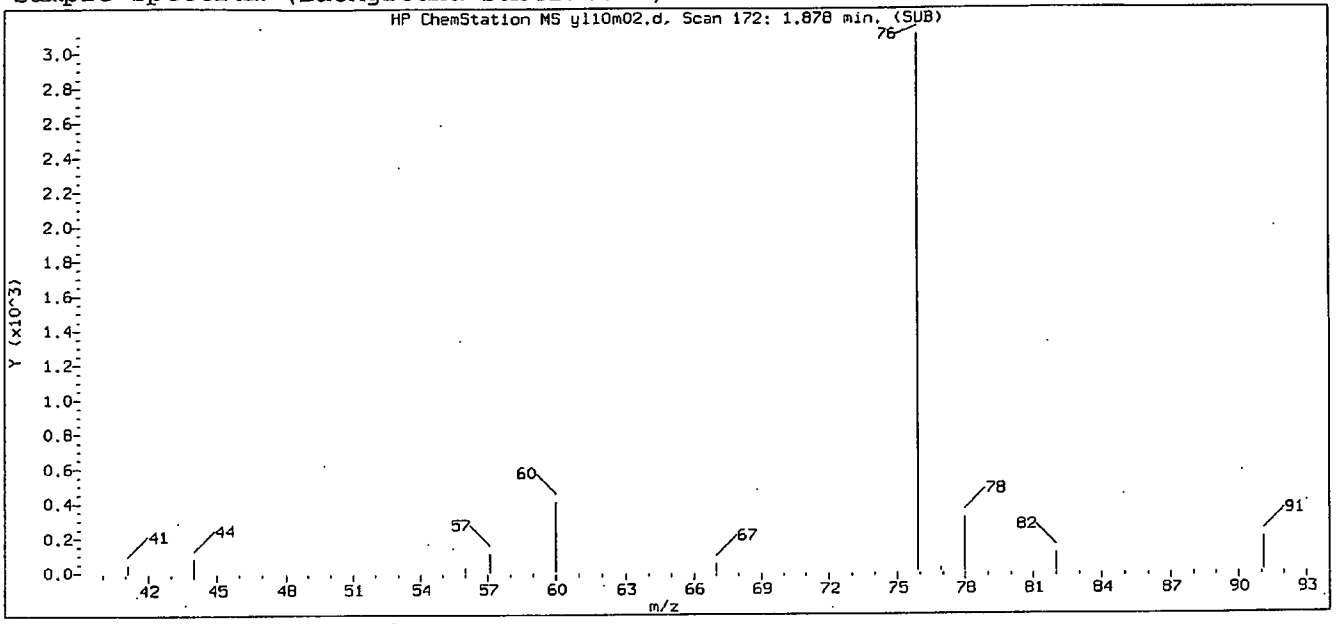
Compound Number	: 22		
Compound Name	: Carbon Disulfide		
Scan Number	: 172		
Retention Time (minutes)	: 1.878		
Quant Ion	: 76.00		
Area (flag)	: 8342M		
On-Column Amount (ng)	: 0.4838		
Integration start scan	: 165	Integration stop scan:	180
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

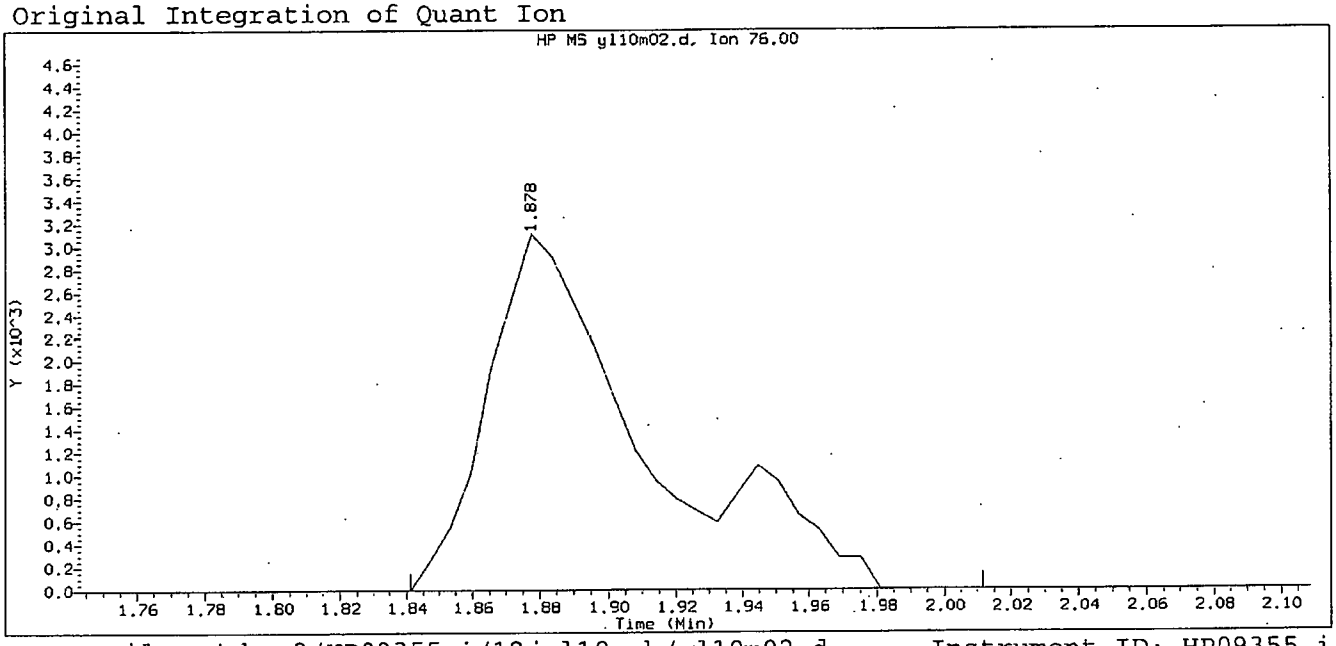
Analyst responsible for change: Digitally signed by Sara E. Johnson on 07/10/2012 at 15:24. Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

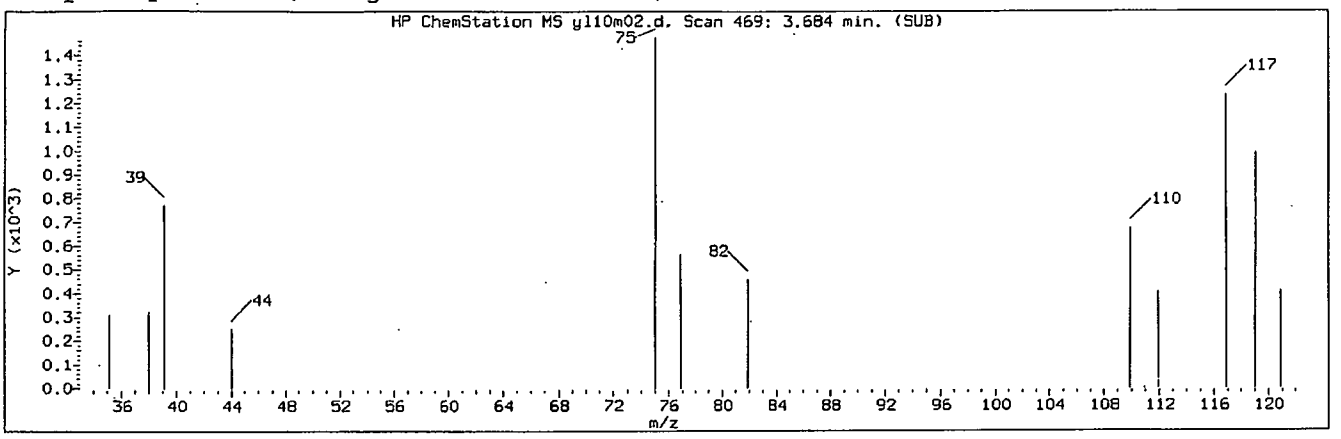
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 14:49 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

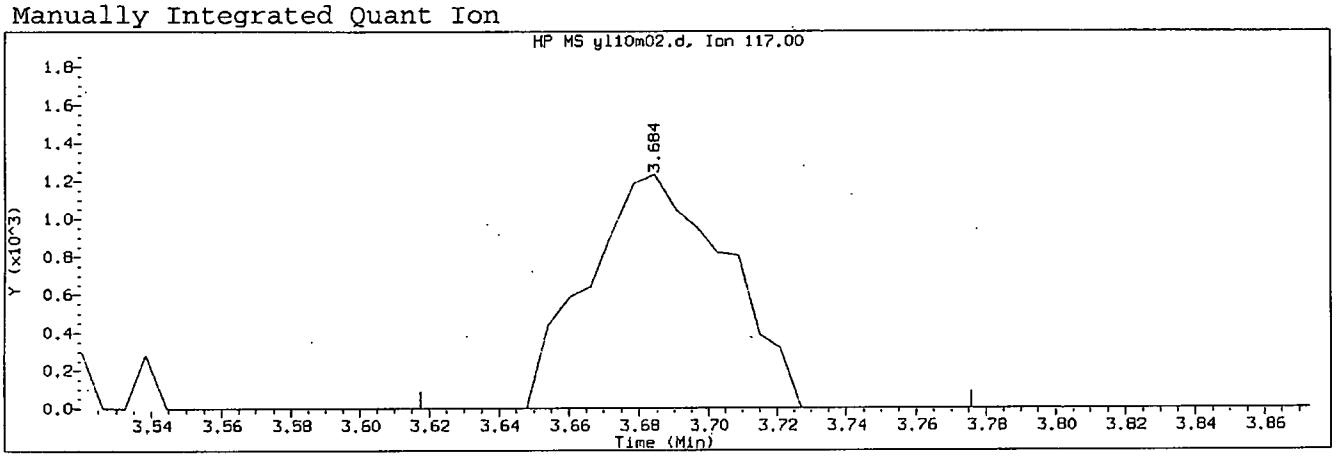
Compound Number	: 22		
Compound Name	: Carbon Disulfide		
Scan Number	: 172		
Retention Time (minutes)	: 1.878		
Quant Ion	: 76.00		
Area	: 10028		
On-column Amount (ng)	: 0.5816		
Integration start scan	: 165	Integration stop scan:	193
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sara E. Johnson on 07/10/2012 at 15:24.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/y110m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

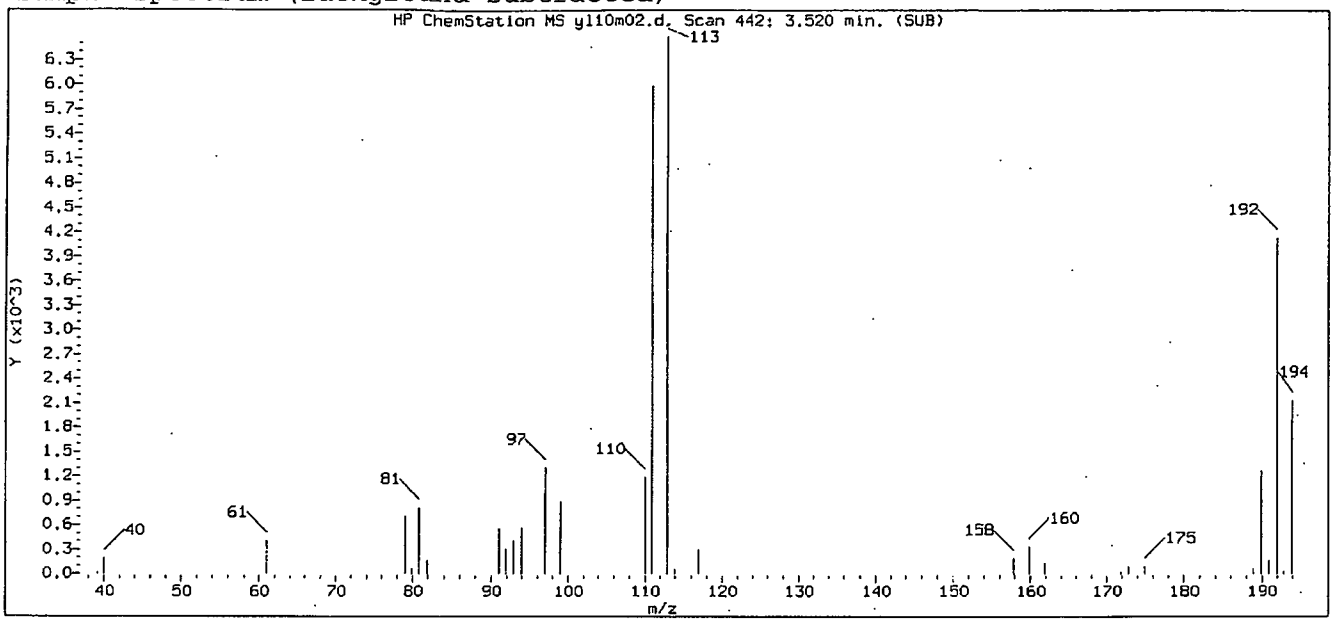
Compound Number	: 58		
Compound Name	: Carbon Tetrachloride		
Scan Number	: 469		
Retention Time (minutes)	: 3.684		
Quant Ion	: 117.00		
Area (flag)	: 3420M		
On-Column Amount (ng)	: 0.3998		
Integration start scan	: 457	Integration stop scan:	483
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

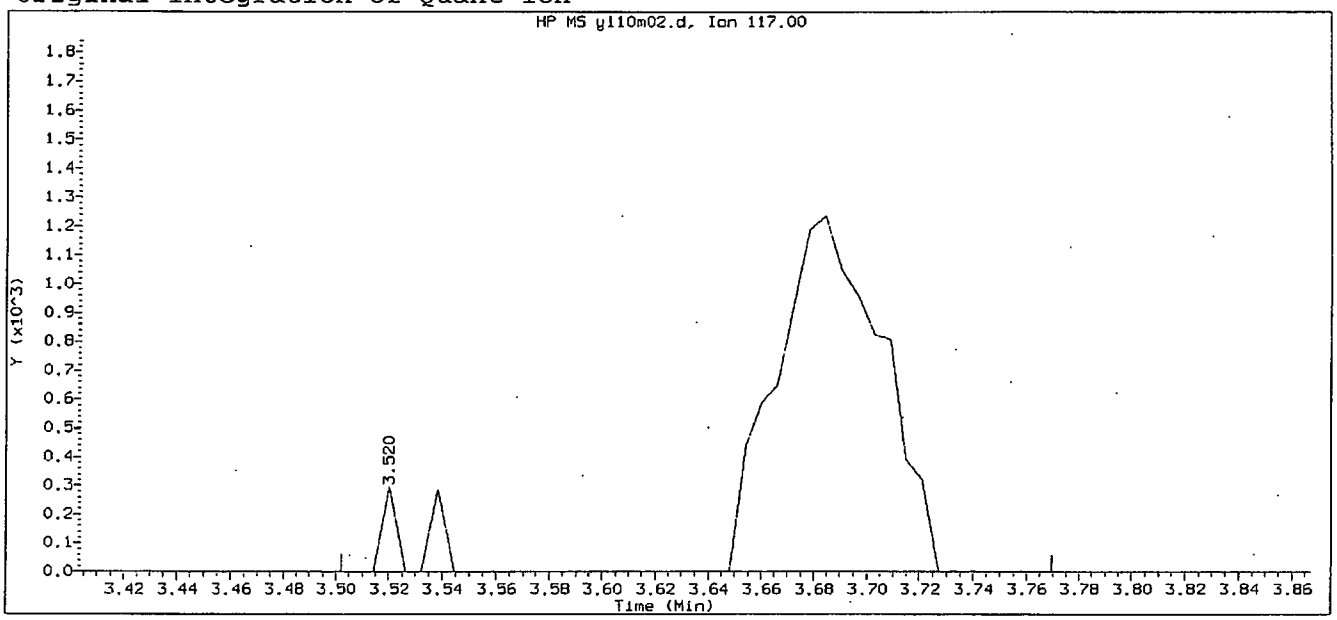
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 07/10/2012 at 15:24
Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

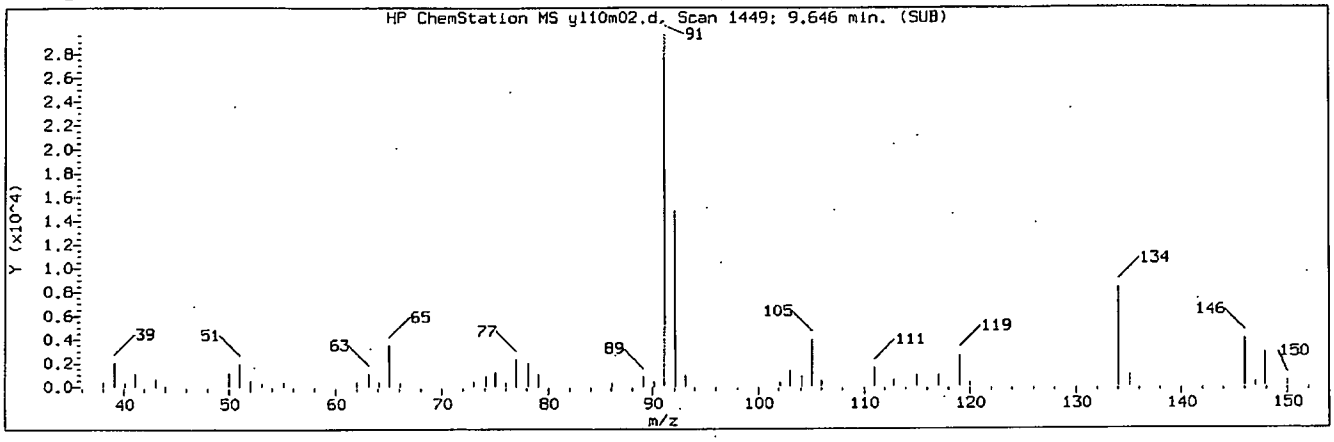
Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 14:49 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

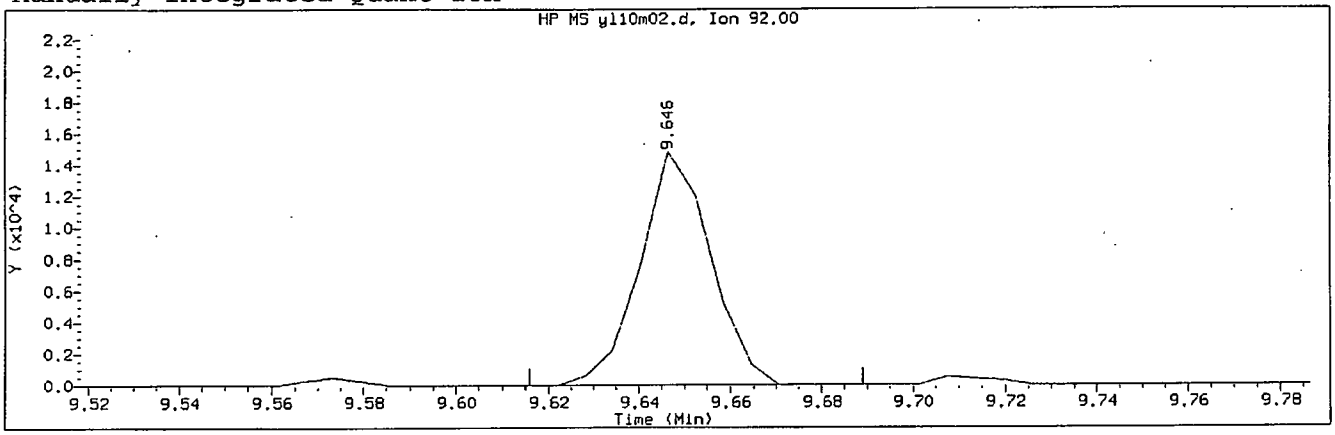
Compound Number	: 58		
Compound Name	: Carbon Tetrachloride		
Scan Number	: 442		
Retention Time (minutes)	: 3.520		
Quant Ion	: 117.00		
Area	: 3632		
On-column Amount (ng)	: 0.4246		
Integration start scan	: 438	Integration stop scan:	482
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sara E. Johnson on 07/10/2012 at 15:24.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:24 sej02002

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

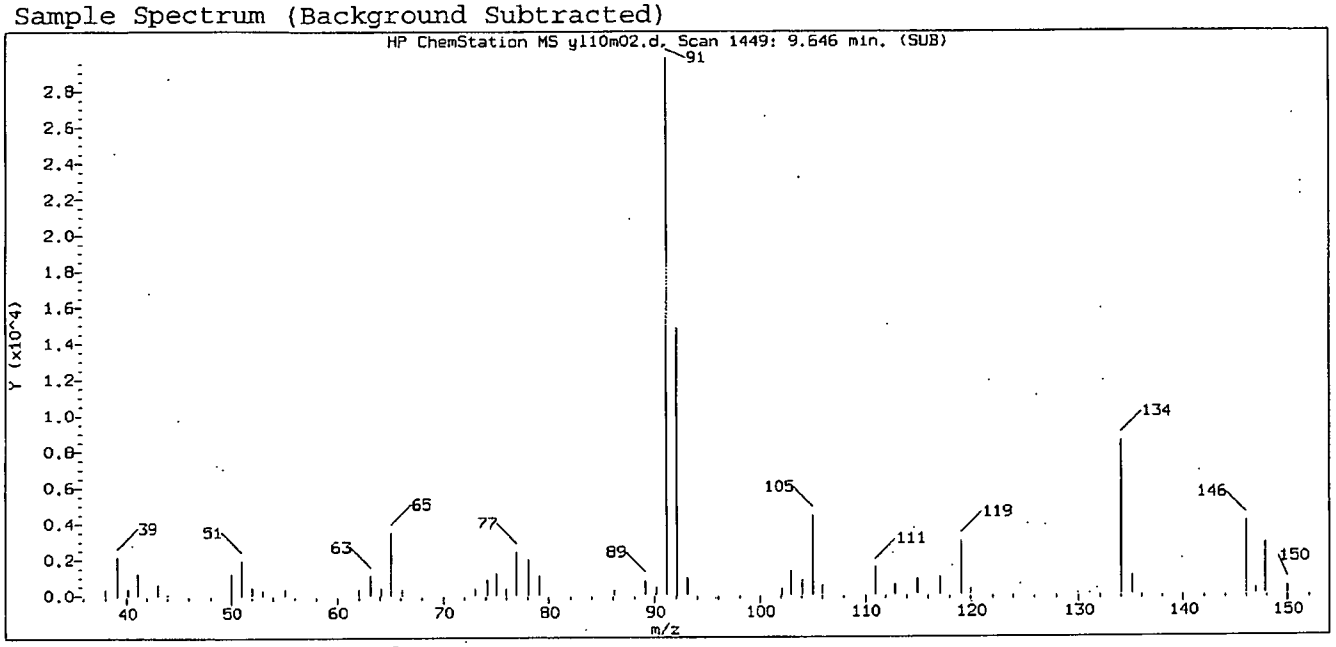
Compound Number	: 145		
Compound Name	: n-Butylbenzene		
Scan Number	: 1449		
Retention Time (minutes)	: 9.646		
Quant Ion	: 92.00		
Area (flag)	: 15957M		
On-Column Amount (ng)	: 0.9507		
Integration start scan	: 1443	Integration stop scan:	1455
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

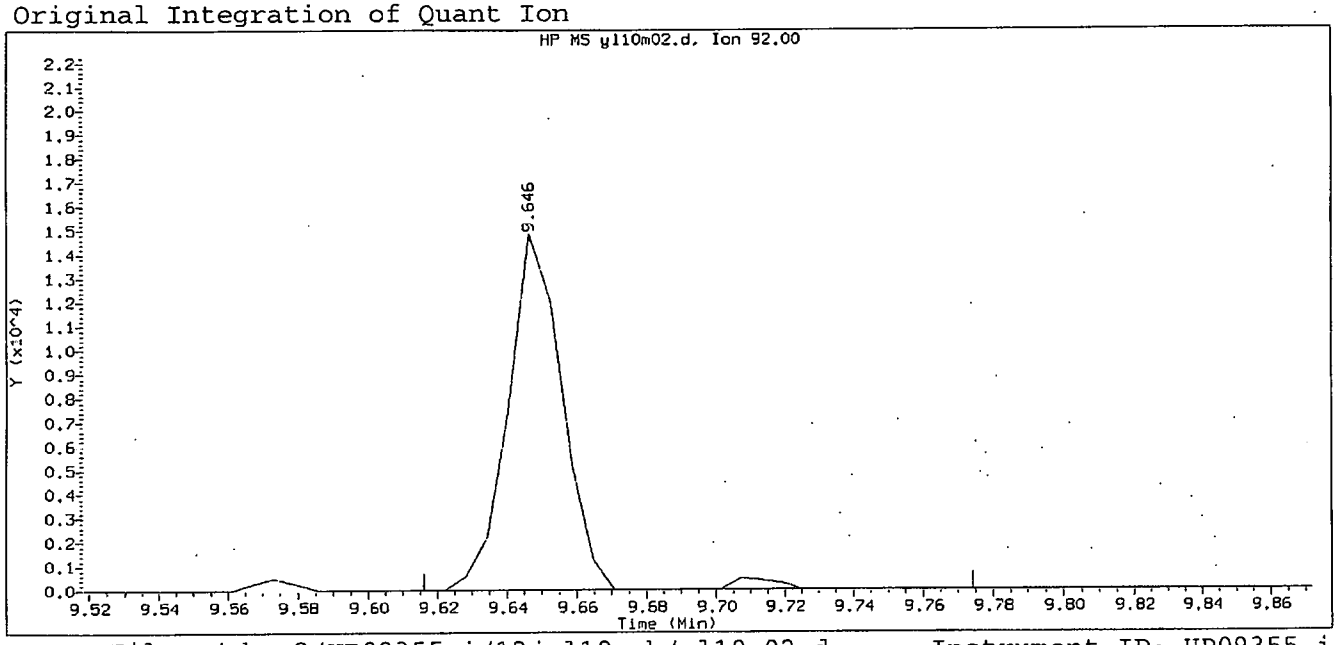
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 07/10/2012 at 15:24.
Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/12/12
7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10m02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:34 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 14:49 Automation

Sample Name: MDL0.5 Lab Sample ID: MDL0.5

Compound Number	: 145		
Compound Name	: n-Butylbenzene		
Scan Number	: 1449		
Retention Time (minutes)	: 9.646		
Quant Ion	: 92.00		
Area	: 16383		
On-column Amount (ng)	: 0.9761		
Integration start scan	: 1443	Integration stop scan:	1469
Y at integration start	: 0	Y at integration end:	0

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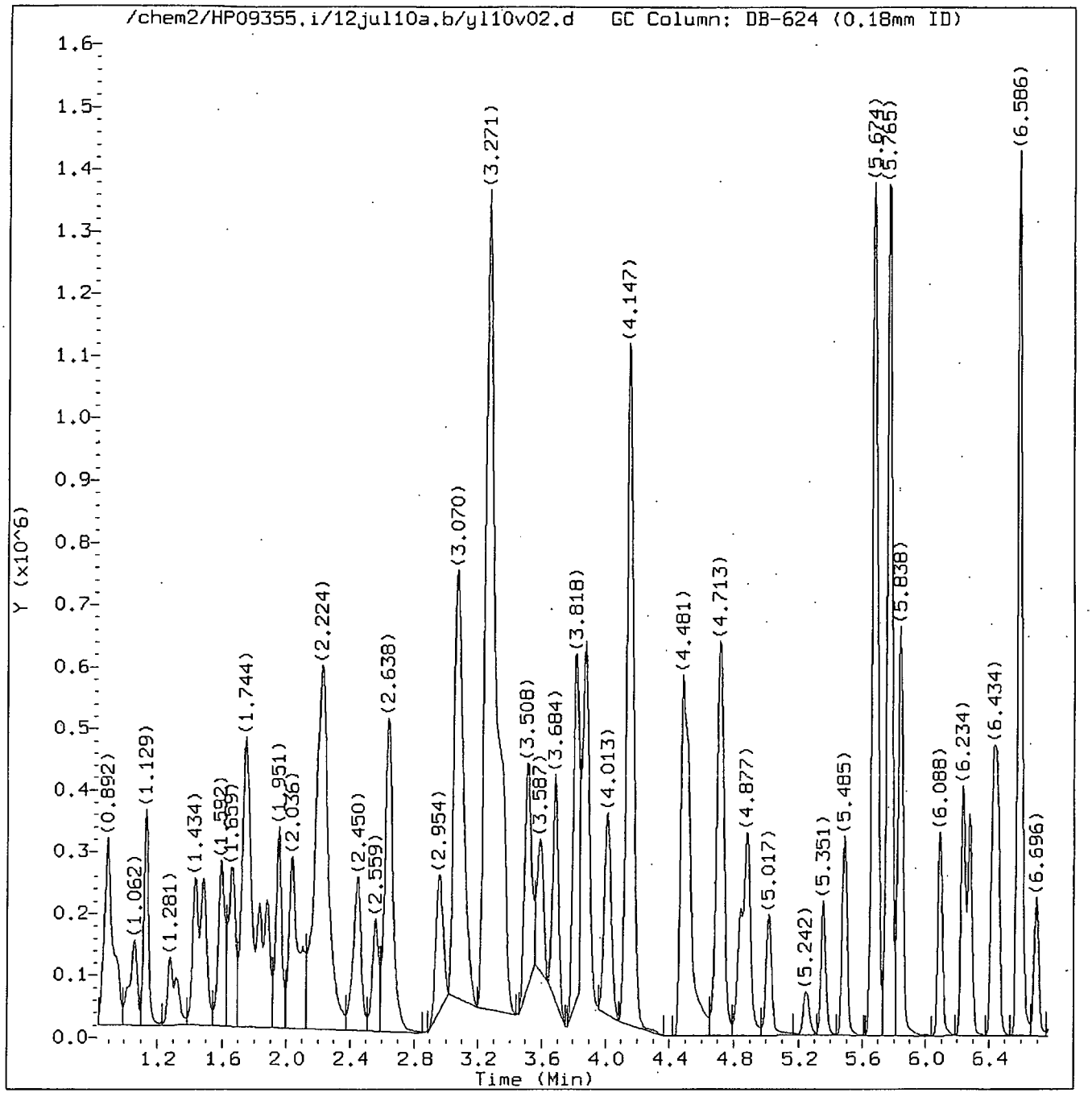
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:23 sej02002

Sample Name: YLGICV Lab Sample ID: YLGICV

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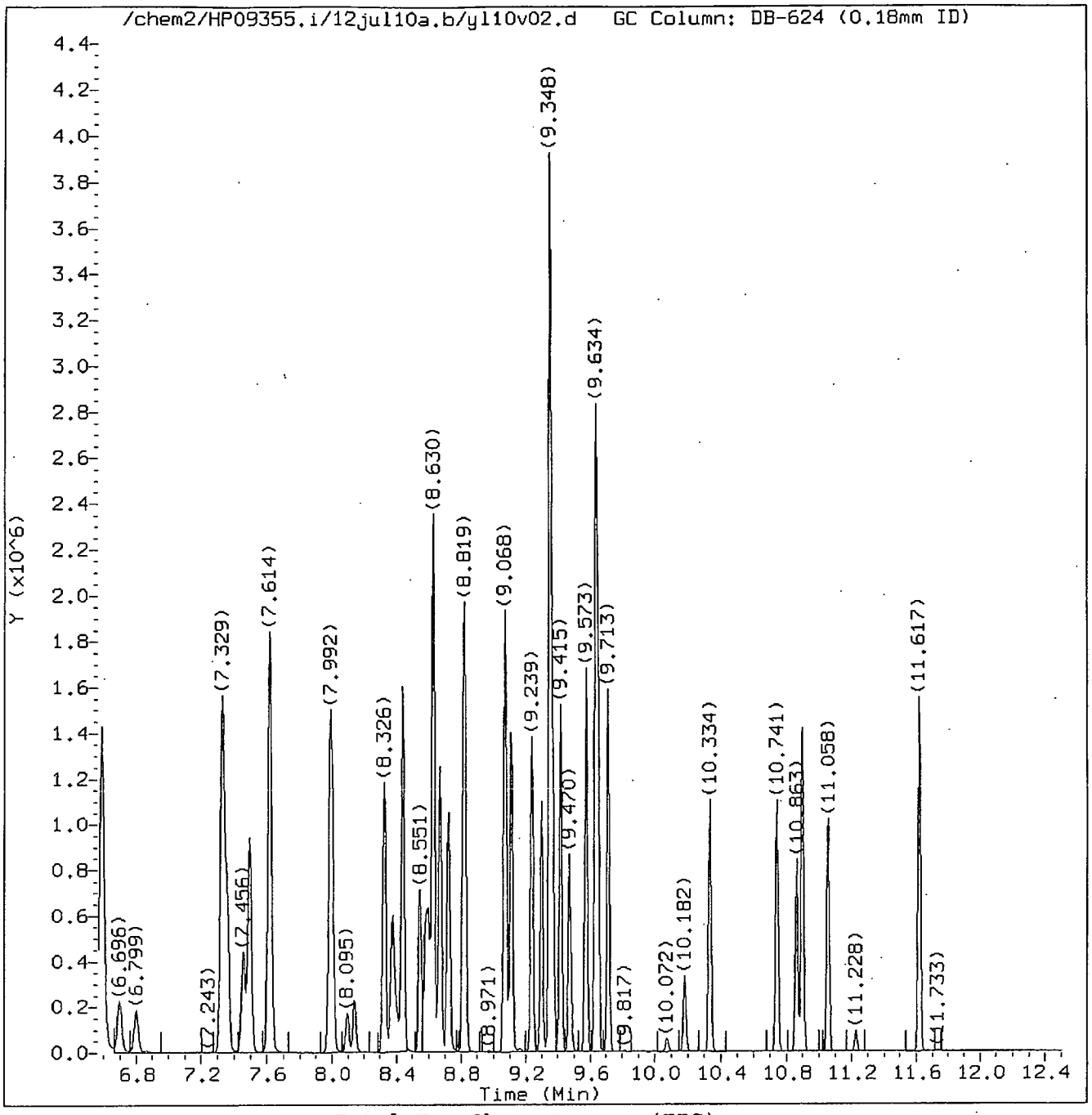
on 07/10/2012 at 15:23
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:23 sej02002

Sample Name: YLGICV Lab Sample ID: YLGICV

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on 07/10/2012 at 15:23.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 11-JUL-2012 18:10
Date, time and analyst ID of latest file update: 11-Jul-2012 18:13 sej02002

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.020	85	136130	14.309
3) Chloromethane	(1)	1.062	50	159993	16.025
5) Vinyl Chloride	(1)	1.129	62	159008	16.924
4) 1,3-Butadiene	(1)	1.129	39	120275	17.580
7) Bromomethane	(1)	1.281	94	88640	15.398
8) Chloroethane	(1)	1.324	64	69513	14.224
9) Dichlorofluoromethane	(1)	1.434	67	237014	20.580
11) n-Pentane	(1)	1.482	43	116395	10.394
10) Trichlorofluoromethane	(1)	1.494	101	187177M	18.698
13) Ethyl Ether	(1)	1.592	59	96843	16.431
14) Freon 123a	(1)	1.604	67	140395	20.222
15) Acrolein	(4)	1.665	56	304306	122.773
16) 1,1-Dichloroethene	(1)	1.732	96	102218	19.267
17) Acetone	(1)	1.750	58	176886	128.666
18) Freon 113	(1)	1.756	101	106559A	18.436
20) Methyl Iodide	(1)	1.829	142	188215	18.649
21) 2-Propanol	(4)	1.835	45	141427	155.835
22) Carbon Disulfide	(1)	1.878	76	291358	17.439
24) Allyl Chloride	(1)	1.951	41	178979	17.815
25) Methyl Acetate	(1)	1.957	43	205167A	21.037
26) Methylene Chloride	(1)	2.036	84	120368	18.479
28)*t-Butyl Alcohol-d10	(4)	2.048	65	361869	250.000
29) t-Butyl Alcohol	(4)	2.109	59	393678	192.960
30) Acrylonitrile	(1)	2.194	53	509177	95.190
31) trans-1,2-Dichloroethene	(1)	2.231	96	125570	19.671
32) Methyl Tertiary Butyl Ether	(1)	2.243	73	445326	19.297
33) n-Hexane	(1)	2.443	57	212265	18.965
34) 1,1-Dichloroethane	(1)	2.559	63	246515	19.607
36) di-Isopropyl Ether	(1)	2.638	45	464162	18.772
37) 2-Chloro-1,3-Butadiene	(1)	2.644	53	218620	19.344
39) Ethyl t-Butyl Ether	(1)	2.954	59	445077	19.019
40) cis-1,2-Dichloroethene	(1)	3.070	96	139934	19.486
42) 2,2-Dichloropropane	(1)	3.076	77	187500	19.081
41) 2-Butanone	(1)	3.076	43	1114300	141.046
43) Propionitrile	(4)	3.125	54	325206	147.273
46) Methacrylonitrile	(1)	3.265	67	737866	144.426
47) Bromochloromethane	(1)	3.283	128	70515	18.965
48) Tetrahydrofuran	(4)	3.326	71	196905	96.386

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.

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on 07/11/2012 at 18:14.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:23 sej02002

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Chloroform	(1)	3.362	83	220723	18.250
52)$Dibromofluoromethane	(1)	3.508	113	271129	49.531
53) 1,1,1-Trichloroethane	(1)	3.532	97	188675	16.757
56) Cyclohexane	(1)	3.593	56	239704	18.655
45) 1,2-Dichloroethene (total)	(1)		96	265504	39.157
57) 1,1-Dichloropropene	(1)	3.684	75	178295	18.741
58) Carbon Tetrachloride	(1)	3.691	117	157644	19.019
59) Isobutyl Alcohol	(4)	3.818	41	278570	452.797
62)$1,2-Dichloroethane-d4	(1)	3.818	102	73524	51.369
63) Benzene	(1)	3.873	78	534232	19.140
65) 1,2-Dichloroethane	(1)	3.885	62	200314	19.149
69) t-Amyl Methyl Ether	(1)	4.013	73	412469	18.919
71)*Fluorobenzene	(1)	4.147	96	1184133	50.000
72) n-Heptane	(1)	4.171	43	249296	18.700
73) n-Butanol	(4)	4.481	56	506136	908.044
74) Trichloroethene	(1)	4.512	95	135029	19.017
76) Methylcyclohexane	(1)	4.707	83	249544	19.652
77) 1,2-Dichloropropane	(1)	4.725	63	146405	19.222
78) Dibromomethane	(1)	4.840	93	91497	19.024
79) 1,4-Dioxane	(4)	4.871	88	72797	492.415
80) Methyl Methacrylate	(1)	4.883	69	150450	18.491
83) Bromodichloromethane	(1)	5.017	83	157506	18.517
85) 2-Nitropropane	(1)	5.248	41	59282	15.993
86) 2-Chloroethyl Vinyl Ether	(1)	5.351	63	120463	18.877
87) cis-1,3-Dichloropropene	(1)	5.485	75	230998	20.725
89) 4-Methyl-2-Pentanone	(1)	5.674	43	1380529	93.324
93)$Toluene-d8	(2)	5.771	98	1172744	50.029
94) Toluene	(2)	5.838	92	338769	18.924
95) trans-1,3-Dichloropropene	(2)	6.088	75	206993	18.841
96) Ethyl Methacrylate	(2)	6.234	69	243702	18.949
97) 1,1,2-Trichloroethane	(2)	6.276	97	131213	19.189
98) Tetrachloroethene	(2)	6.428	166	157310	19.133
99) 1,3-Dichloropropane	(2)	6.453	76	235347	19.218
101) 2-Hexanone	(2)	6.586	43	1125313	92.840
102) Dibromochloromethane	(2)	6.696	129	125508	18.679
104) 1,2-Dibromoethane	(2)	6.799	107	143454	19.078
106)*Chlorobenzene-d5	(2)	7.329	117	861039	50.000
107) Chlorobenzene	(2)	7.359	112	386029	19.130

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 07/10/2012 at 15:23.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:23 sej02002

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
108) 1,1,1,2-Tetrachloroethane	(2)	7.456	131	123725	18.554
109) Ethylbenzene	(2)	7.493	91	664382	19.006
110) m+p-Xylene	(2)	7.621	106	522205	38.351
113) o-Xylene	(2)	7.986	106	254751	18.935
114) Styrene	(2)	7.998	104	431914	18.830
115) Bromoform	(2)	8.138	173	94703	17.095
112) Xylene (Total)	(2)		106	776956	57.286
116) Isopropylbenzene	(2)	8.326	105	671615	19.160
118) Cyclohexanone	(4)	8.375	55	312271	432.241
119)$4-Bromofluorobenzene	(2)	8.436	95	435291	49.754
121) Bromobenzene	(3)	8.551	156	173684	18.676
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	225883	18.965
123) 1,2,3-Trichloropropane	(3)	8.600	110	69698	18.121
124) trans-1,4-Dichloro-2-Butene	(3)	8.630	53	401877	98.034
125) n-Propylbenzene	(3)	8.673	91	792854	19.335
126) 2-Chlorotoluene	(3)	8.722	126	160200	18.714
128) 4-Chlorotoluene	(3)	8.813	126	166127	18.547
127) 1,3,5-Trimethylbenzene	(3)	8.819	105	575098	18.966
131) Pentachloroethane	(3)	9.068	167	99183	18.355
130) tert-Butylbenzene	(3)	9.068	134	130289	18.977
132) 1,2,4-Trimethylbenzene	(3)	9.105	105	581961	18.641
133) sec-Butylbenzene	(3)	9.239	105	718442	19.044
134) 1,3-Dichlorobenzene	(3)	9.300	146	332173	18.684
136)*1,4-Dichlorobenzene-d4	(3)	9.348	152	506143	50.000
135) p-Isopropyltoluene	(3)	9.354	119	648173	19.138
138) 1,4-Dichlorobenzene	(3)	9.367	146	336479	18.424
139) 1,2,3-Trimethylbenzene	(3)	9.415	105	629857	19.857
141) Benzyl Chloride	(3)	9.470	91	444410	18.031
142) 1,3-Diethylbenzene	(3)	9.573	119	395559	19.567
143) 1,4-Diethylbenzene	(3)	9.634	119	413562	19.737
144) 1,2-Dichlorobenzene	(3)	9.634	146	320779	18.823
145) n-Butylbenzene	(3)	9.646	92	309748	18.705
146) 1,2-Diethylbenzene	(3)	9.713	119	330190	19.430
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	58079	17.616
149) 1,3,5-Trichlorobenzene	(3)	10.334	180	262789	18.618
150) 1,2,4-Trichlorobenzene	(3)	10.741	180	249594	18.802
151) Hexachlorobutadiene	(3)	10.863	225	117910	17.811
152) Naphthalene	(3)	10.900	128	815382	19.009

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 07/10/2012 at 15:23
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:23 sej02002

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	238803	18.244
154) 2-Methylnaphthalene	(3)	11.617	142	498552	18.988

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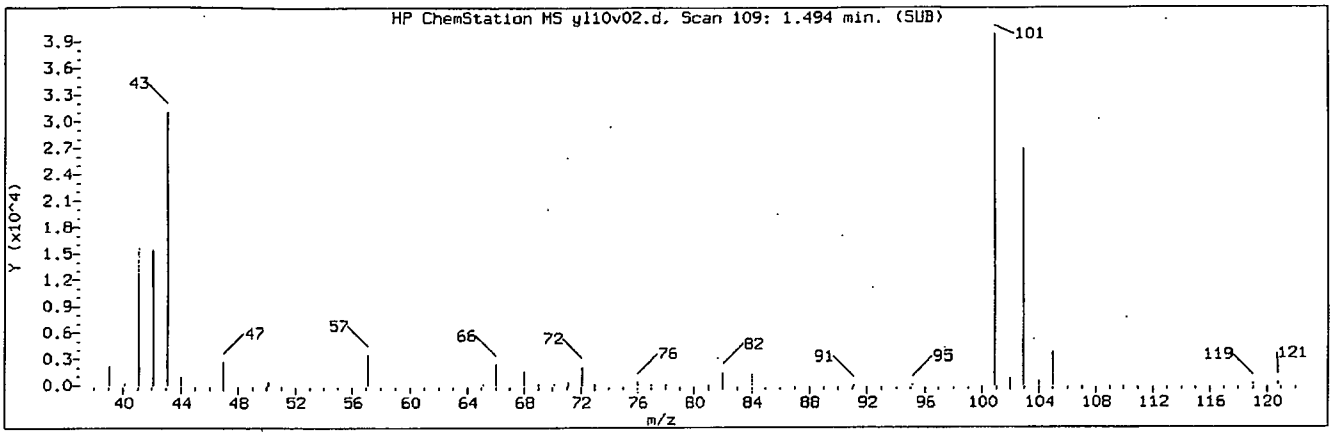
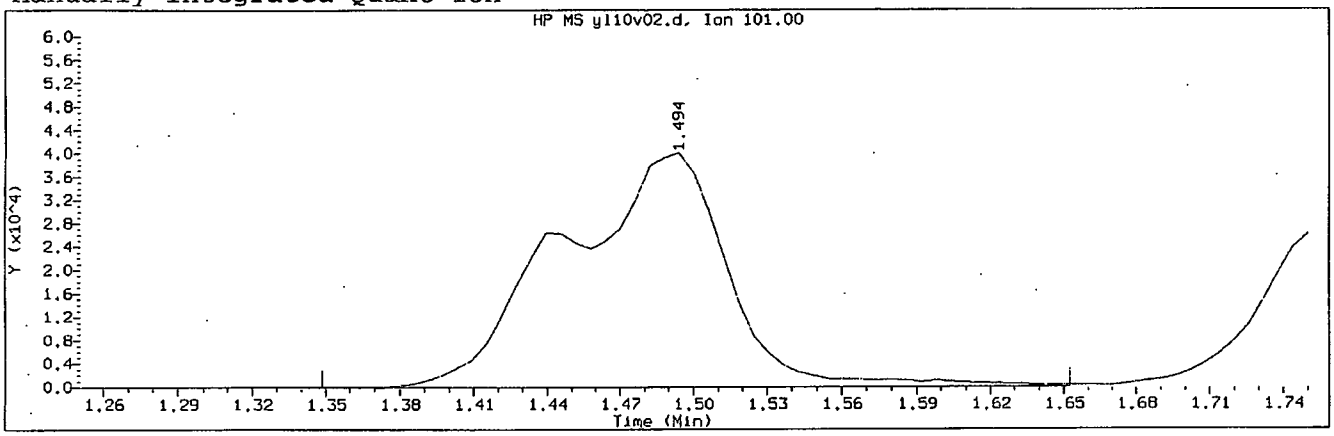
on 07/10/2012 at 15:23.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:23 sej02002

Sample Name: YLGICV Lab Sample ID: YLGICV

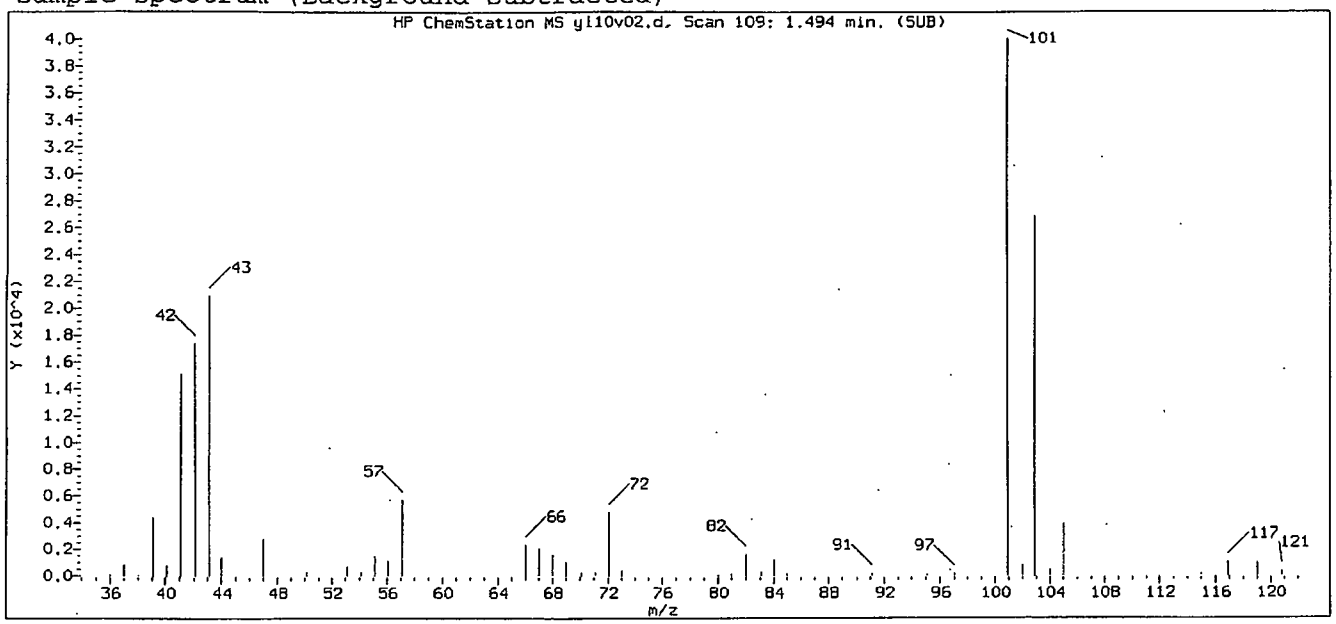
Compound Number	: 10		
Compound Name	: Trichlorofluoromethane		
Scan Number	: 109		
Retention Time (minutes)	: 1.494		
Quant Ion	: 101.00		
Area (flag)	: 187177M		
On-Column Amount (ng)	: 18.6984		
Integration start scan	: 84	Integration stop scan:	134
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

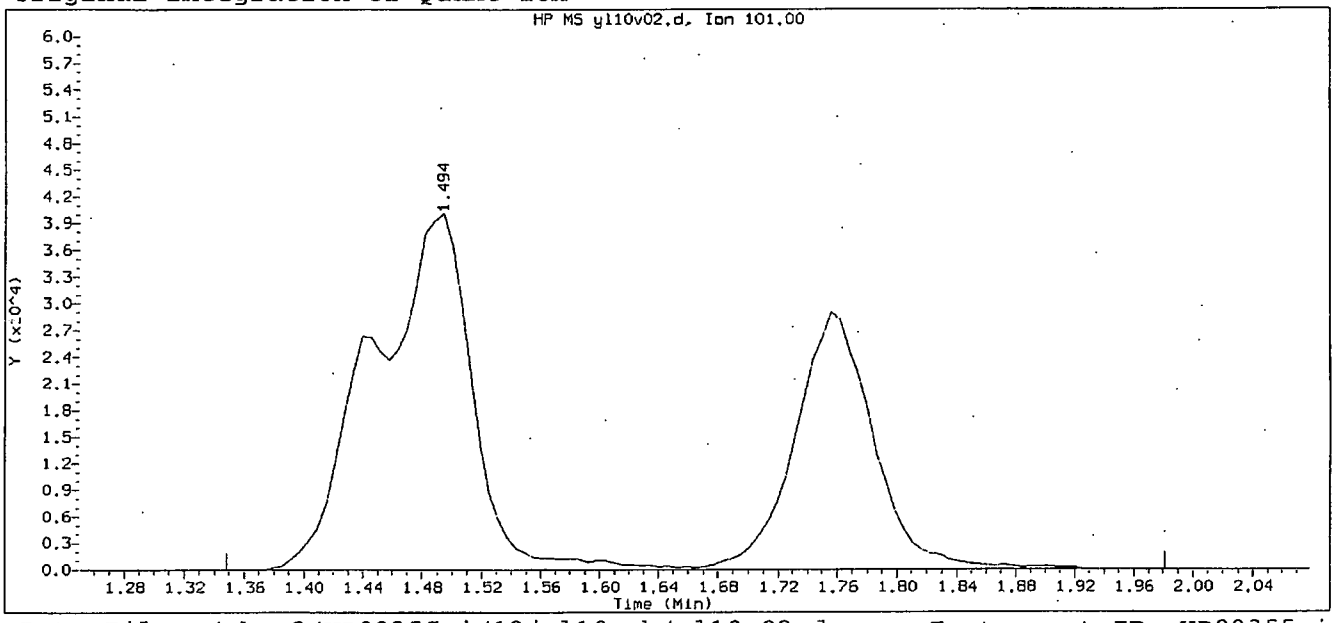
Analyst responsible for change: Digitally signed by Sara E. Johnson on 07/10/2012 at 15:23 Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 15:10 Automation

Sample Name: YLGICV Lab Sample ID: YLGICV

Compound Number	: 10		
Compound Name	: Trichlorofluoromethane		
Scan Number	: 109		
Retention Time (minutes)	: 1.494		
Quant Ion	: 101.00		
Area	: 293907		
On-column Amount (ng)	: 29.3604		
Integration start scan	: 84	Integration stop scan:	188
Y at integration start	: 0	Y at integration end:	0

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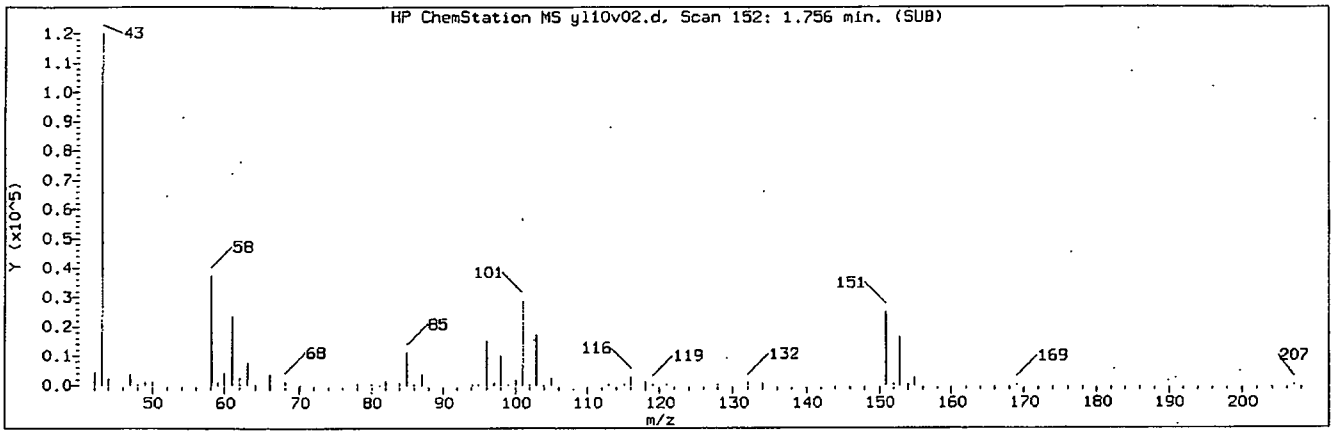
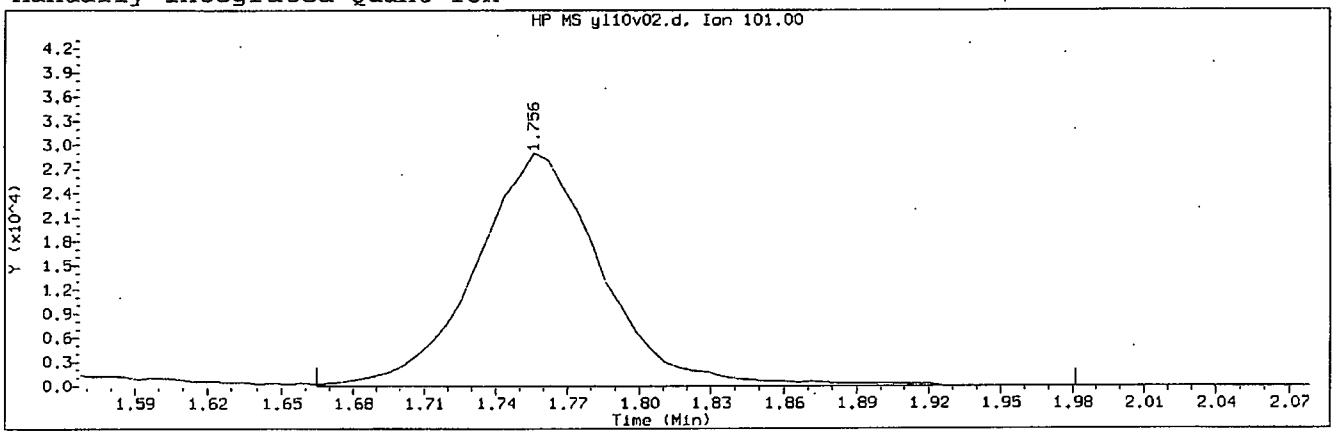
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 15:14
Date, time and analyst ID of latest file update: 10-Jul-2012 15:23 sej02002

Sample Name: YLGICV Lab Sample ID: YLGICV

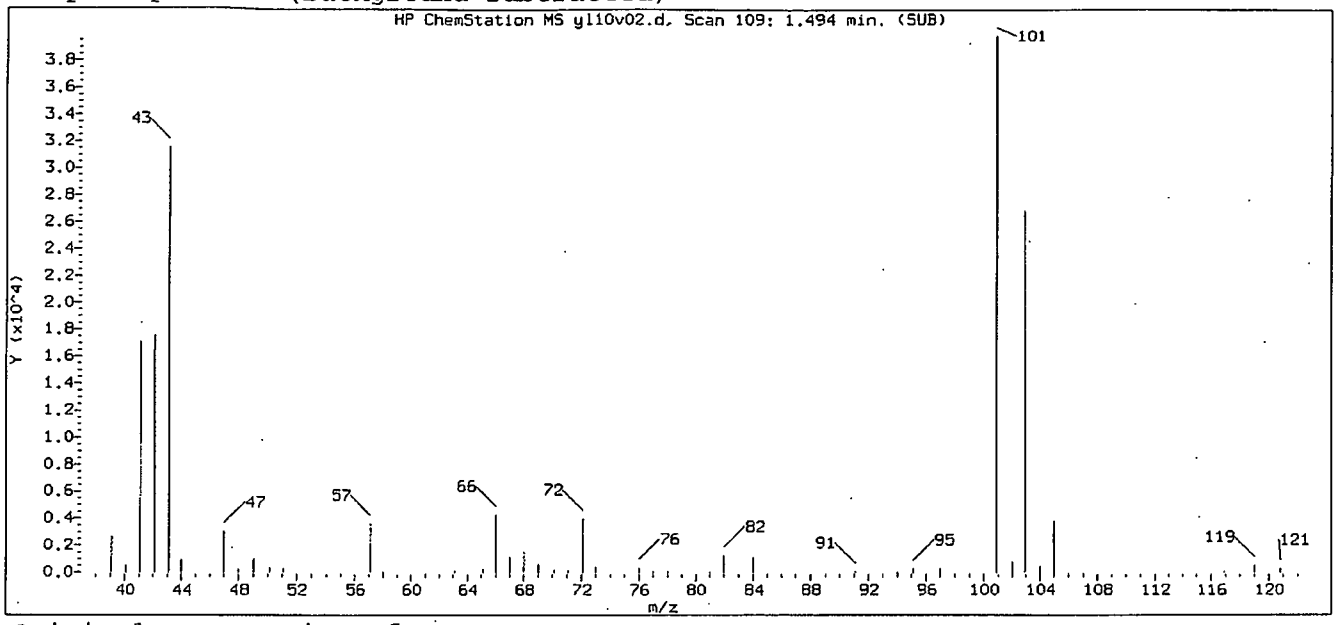
Compound Number	: 18		
Compound Name	: Freon 113		
Scan Number	: 152		
Retention Time (minutes)	: 1.756		
Quant Ion	: 101.00		
Area (flag)	: 106559A		
On-Column Amount (ng)	: 18.4359		
Integration start scan	: 136	Integration stop scan:	188
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

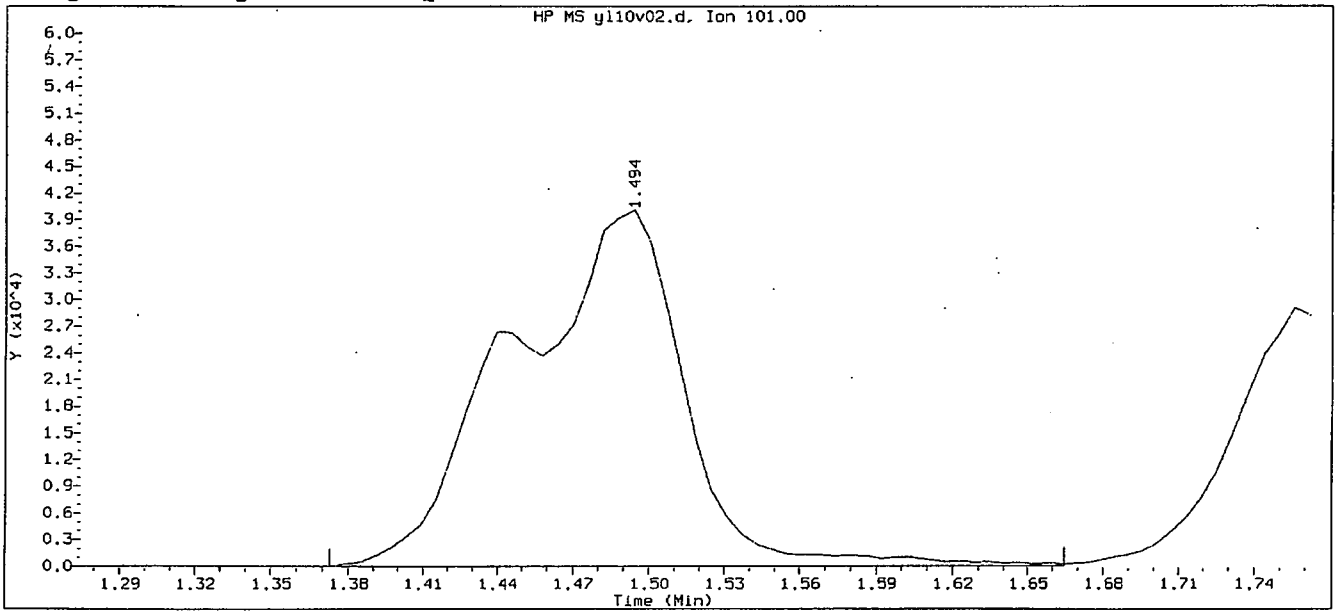
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 07/10/2012 at 15:23
Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 15:10 Automation

Sample Name: YLGICV Lab Sample ID: YLGICV

Compound Number	: 18		
Compound Name	: Freon 113		
Scan Number	: 109		
Retention Time (minutes)	: 1.494		
Quant Ion	: 101.00		
Area	: 187348		
On-column Amount (ng)	: 32.4132		
Integration start scan	: 88	Integration stop scan:	136
Y at integration start	: 0	Y at integration end:	0

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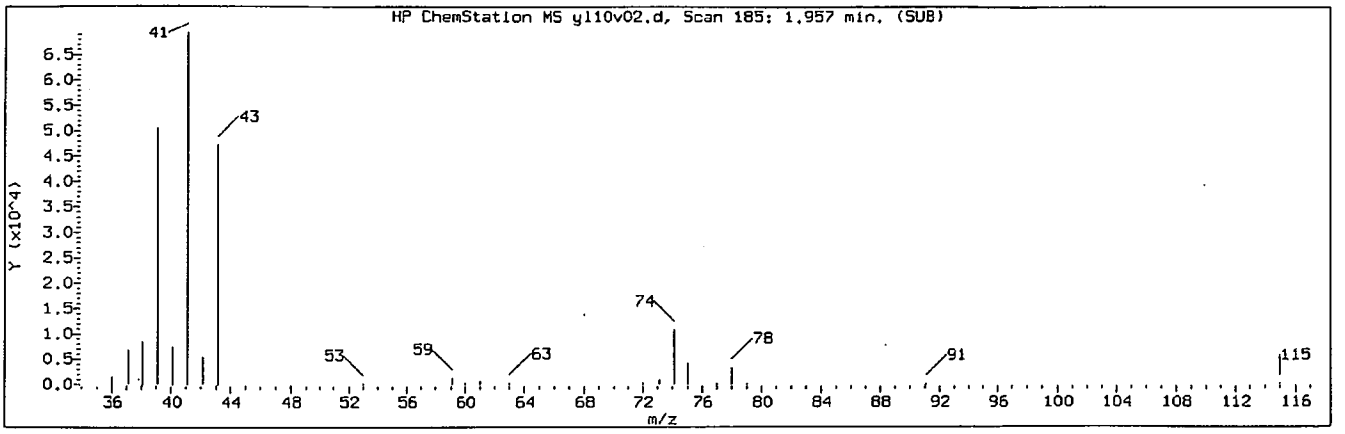
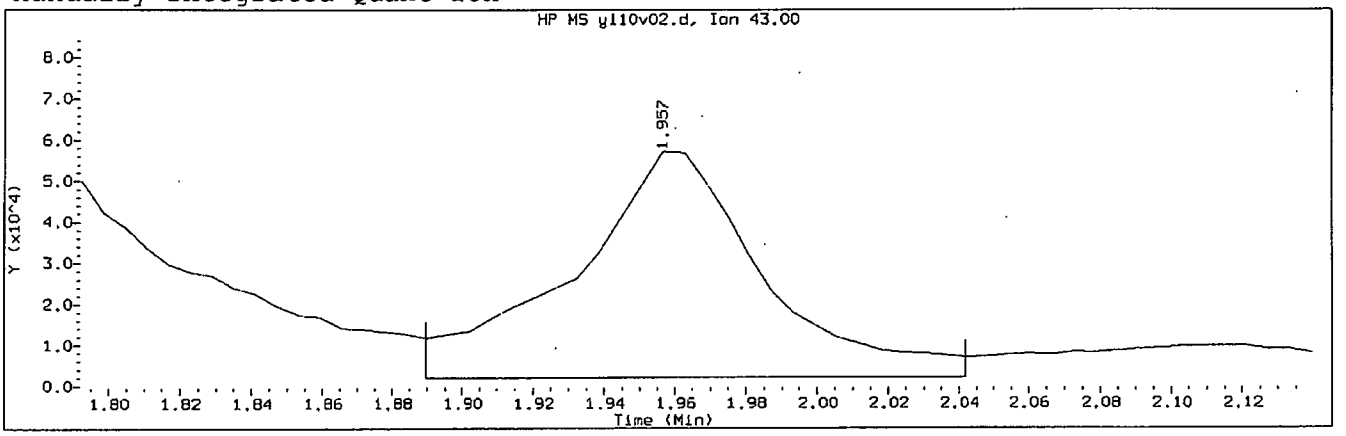
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 11-JUL-2012 18:10
Date, time and analyst ID of latest file update: 11-Jul-2012 18:13 sej02002

Sample Name: YLGICV Lab Sample ID: YLGICV

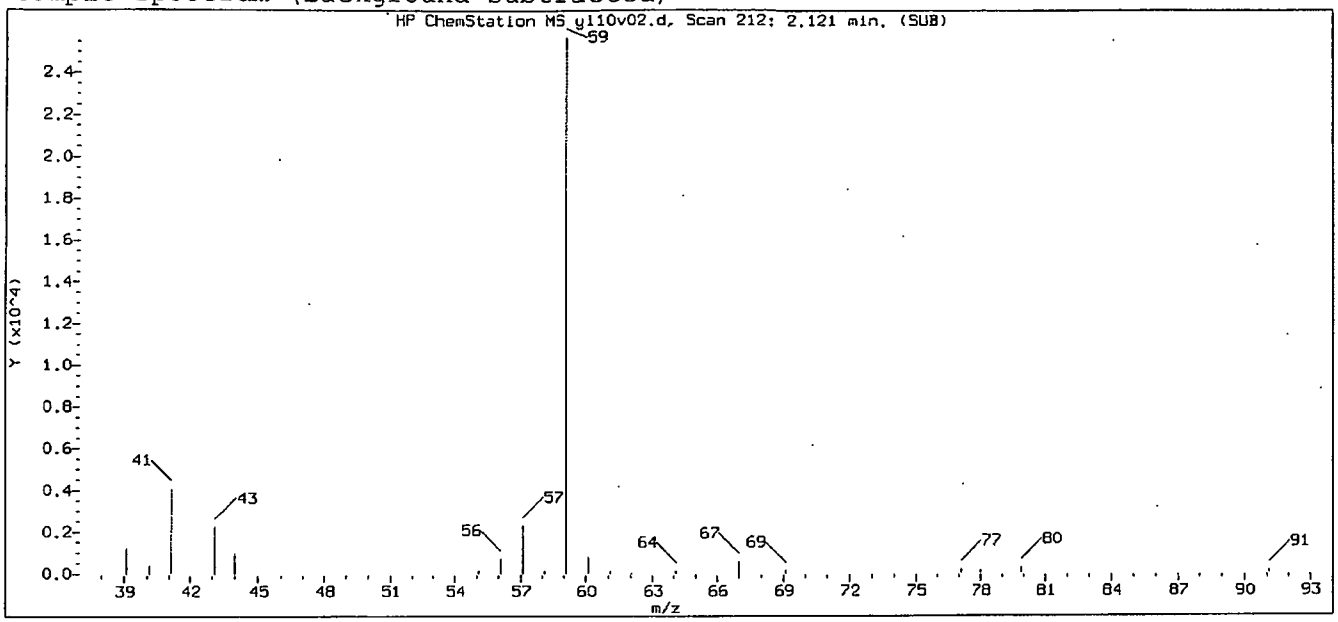
Compound Number	: 25		
Compound Name	: Methyl Acetate		
Scan Number	: 185		
Retention Time (minutes)	: 1.957		
Quant Ion	: 43.00		
Area (flag)	: 205167A		
On-Column Amount (ng)	: 21.0366		
Integration start scan	: 173	Integration stop scan:	198
Y at integration start	: 2070	Y at integration end:	2070

Reason for manual integration: improper integration

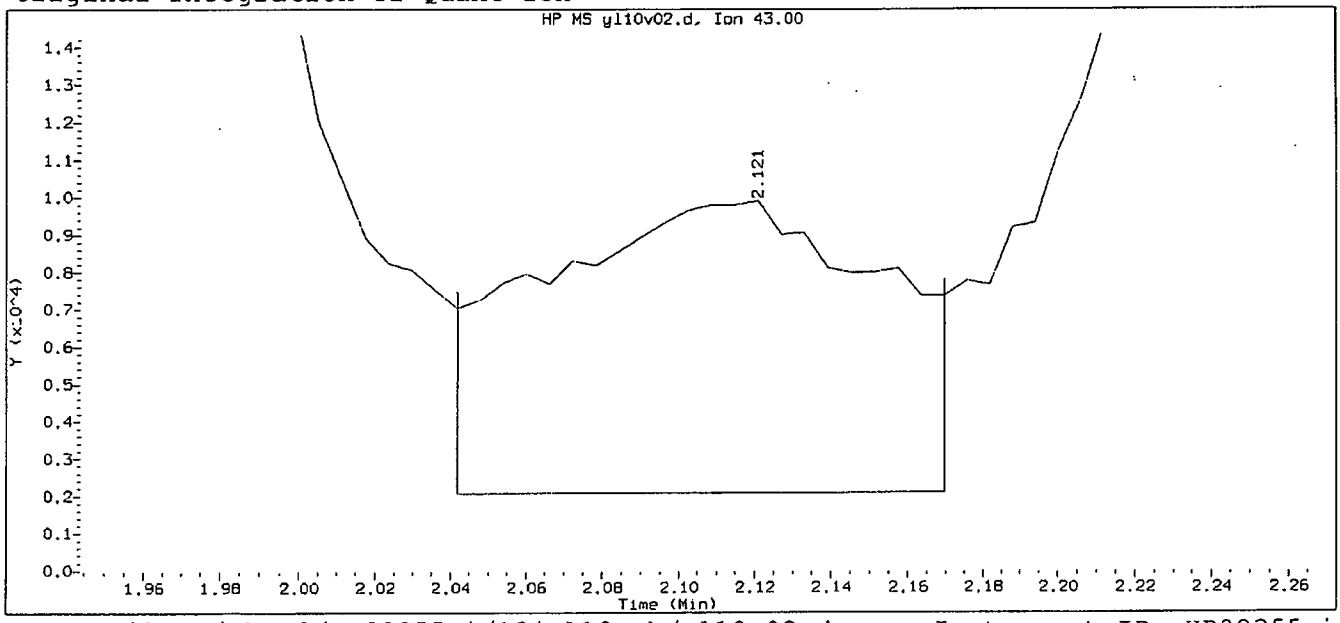
Analyst responsible for change: Digitally signed by Sara E. Johnson on 07/11/2012 at 18:14. Target 3.5 esignature user ID: sej02002

GC/MS audit/management approval: 7/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12jul10a.b/yl10v02.d Instrument ID: HP09355.i
Injection date and time: 10-JUL-2012 14:55 Analyst ID: ADS01731

Method used: /chem2/HP09355.i/12jul10a.b/Y8260W.m Sublist used: 8260W
Calibration date and time: 10-JUL-2012 14:47
Date, time and analyst ID of latest file update: 10-Jul-2012 15:10 Automation

Sample Name: YLGICV Lab Sample ID: YLGICV

Compound Number	: 25		
Compound Name	: Methyl Acetate		
Scan Number	: 212		
Retention Time (minutes)	: 2.121		
Quant Ion	: 43.00		
Area	: 49039		
On-column Amount (ng)	: 5.0283		
Integration start scan	: 198	Integration stop scan:	219
Y at integration start	: 2070	Y at integration end:	2070

Digitally signed by Sara E. Johnson on 07/11/2012 at 18:14.
Target 3.5 esignature user ID: sej02002

Data File: /chem2/HP09355.i/12sep03b.b/ys03t05.d

Date : 03-SEP-2012 23:39

Client ID: 50NG BFB MAR28-12

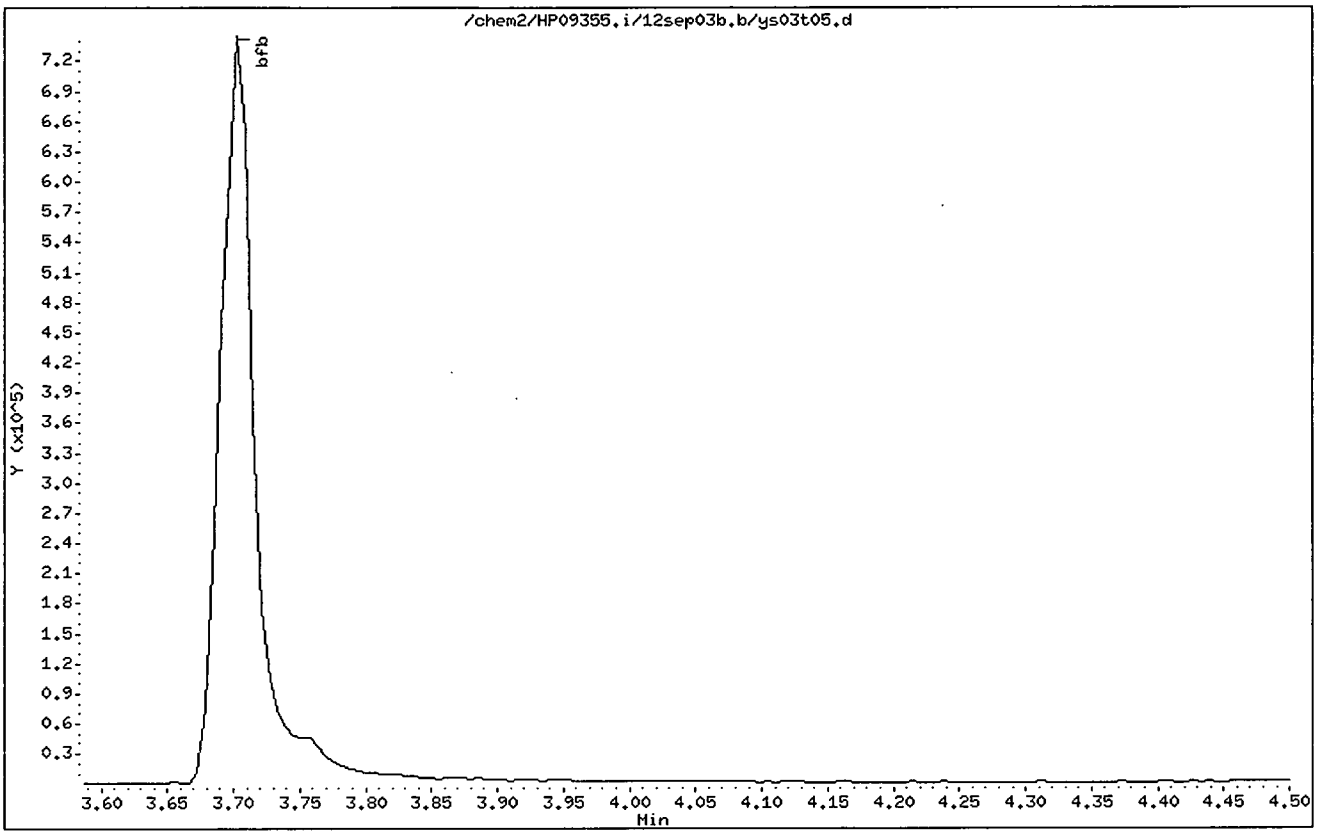
Instrument: HP09355.i

Sample Info: 50NG BFB MAR28-12

Operator: SAS00403

Column phase: DB-624

Column diameter: 0.18



Digitally signed by Stephanie A. Selis on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403

Data File: /chem2/HP09355.i/12sep03b.b/ys03t05.d

Date : 03-SEP-2012 23:39

Client ID: 50NG BFB MAR28-12

Instrument: HP09355.i

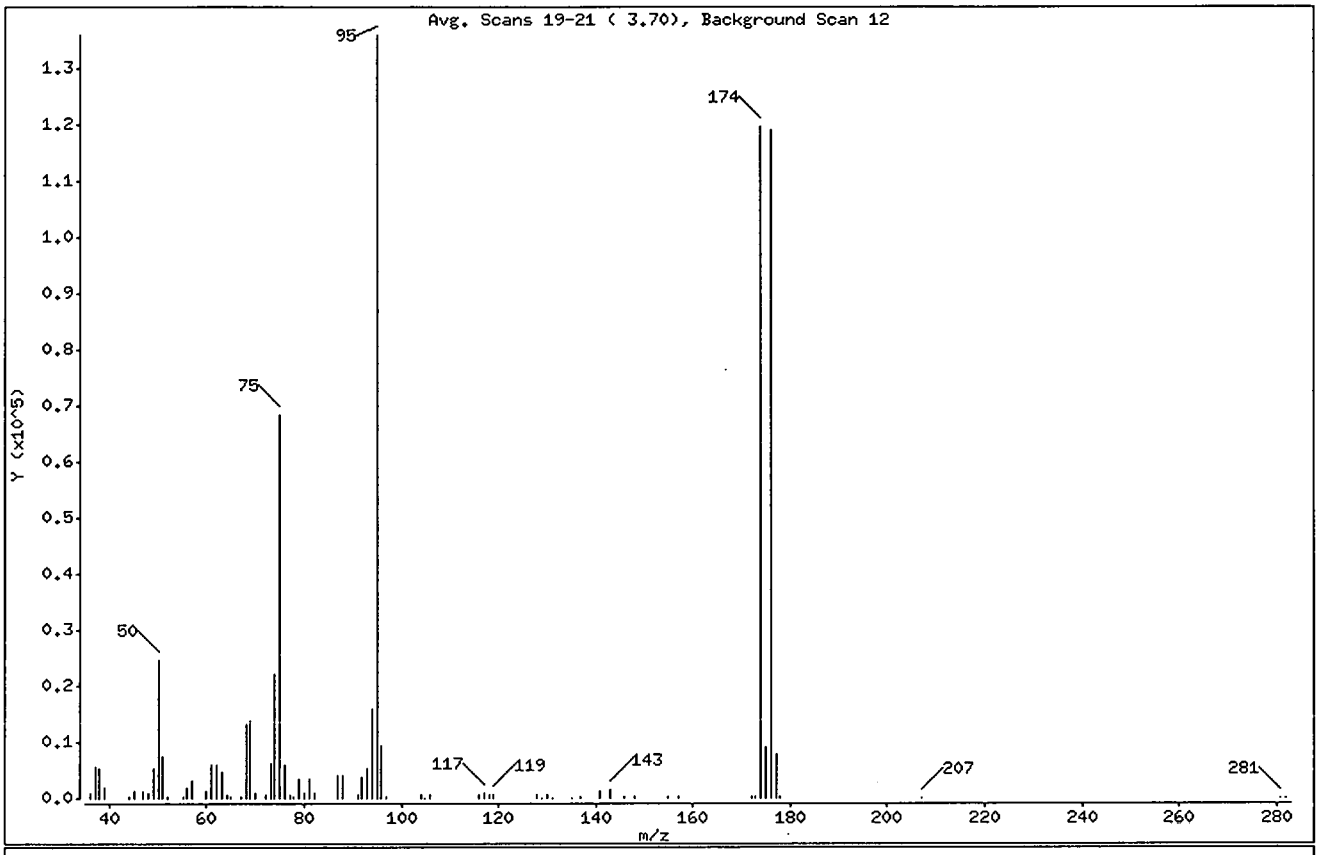
Sample Info: 50NG BFB MAR28-12

Operator: SAS00403

Column phase: DB-624

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.09
75	30.00 - 60.00% of mass 95	50.44
96	5.00 - 9.00% of mass 95	6.82
173	Less than 2.00% of mass 174	0.22 (0.25)
174	50.00 - 100.00% of mass 95	88.09
175	5.00 - 9.00% of mass 174	6.56 (7.45)
176	95.00 - 101.00% of mass 174	87.49 (99.32)
177	5.00 - 9.00% of mass 176	5.83 (6.66)

Digitally signed by Stephanie A. Selis on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403

Data File: /chem2/HP09355.i/12sep03b.b/ys03t05.d

Date : 03-SEP-2012 23:39

Client ID: 50NG BFB MAR28-12

Instrument: HP09355.i

Sample Info: 50NG BFB MAR28-12

Operator: SAS00403

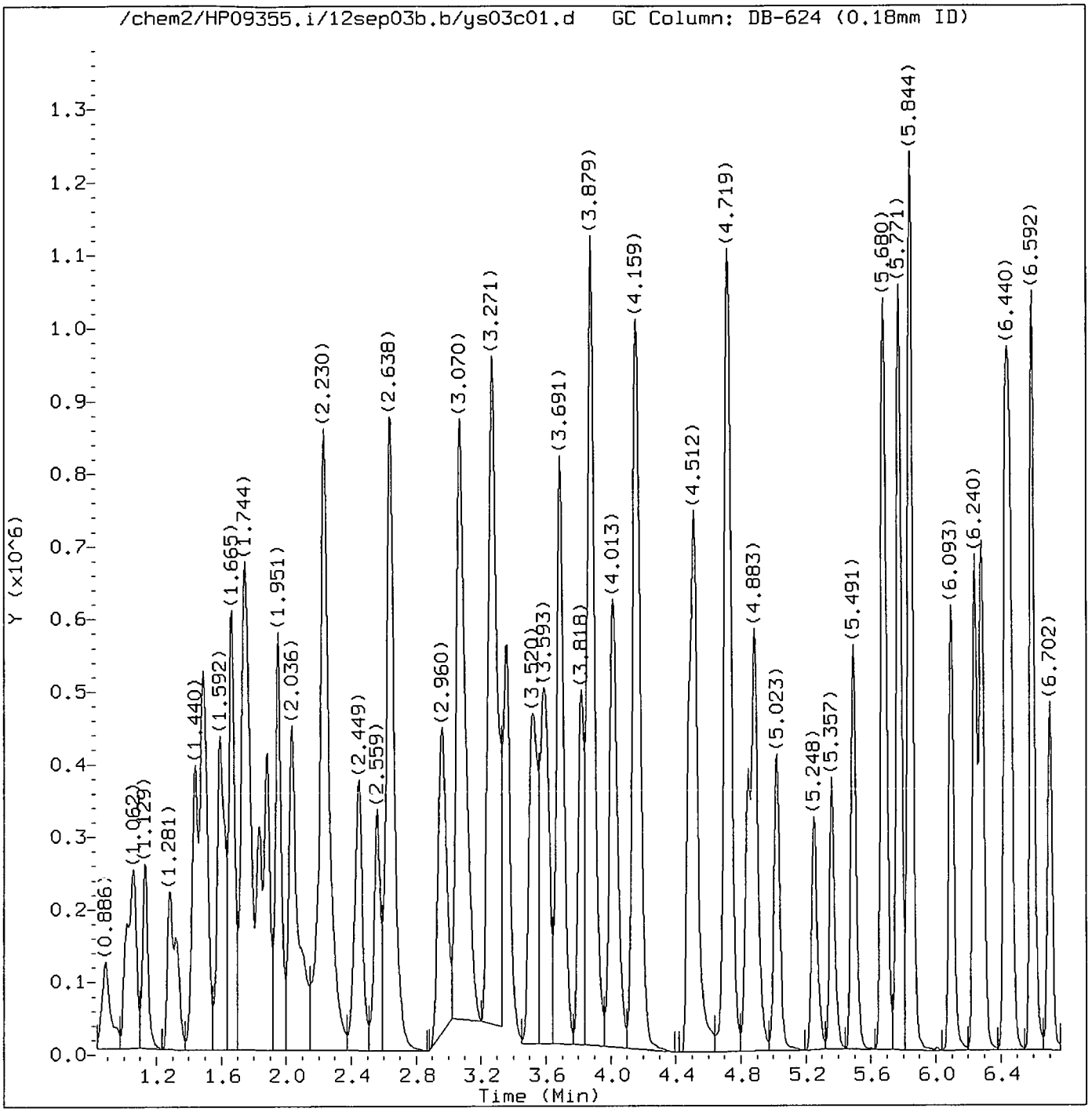
Column phase: DB-624

Column diameter: 0.18

Data File: ys03t05.d
Spectrum: Avg. Scans 19-21 (3.70), Background Scan 12
Location of Maximum: 95.00
Number of points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1054	64.00	543	91.00	476	137.00	285
37.00	5739	65.00	299	92.00	3860	141.00	1277
38.00	5252	67.00	387	93.00	5389	143.00	1428
39.00	1994	68.00	13124	94.00	15836	146.00	236
44.00	423	69.00	13591	95.00	135808	148.00	390
45.00	1107	70.00	929	96.00	9260	155.00	333
47.00	1153	72.00	683	97.00	341	157.00	298
48.00	876	73.00	6297	104.00	588	172.00	426
49.00	5261	74.00	22200	105.00	87	173.00	295
50.00	24568	75.00	68512	106.00	611	174.00	119656
51.00	7378	76.00	5967	116.00	486	175.00	8912
52.00	394	77.00	748	117.00	805	176.00	118840
55.00	365	78.00	378	118.00	546	177.00	7920
56.00	1941	79.00	3285	119.00	718	178.00	183
57.00	3159	80.00	1004	128.00	551	207.00	26
60.00	1263	81.00	3509	129.00	103	281.00	133
61.00	5824	82.00	853	130.00	504	282.00	83
62.00	5941	87.00	4200	131.00	84		
63.00	4724	88.00	4193	135.00	99		

Digitally signed by Stephanie A. Selis on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

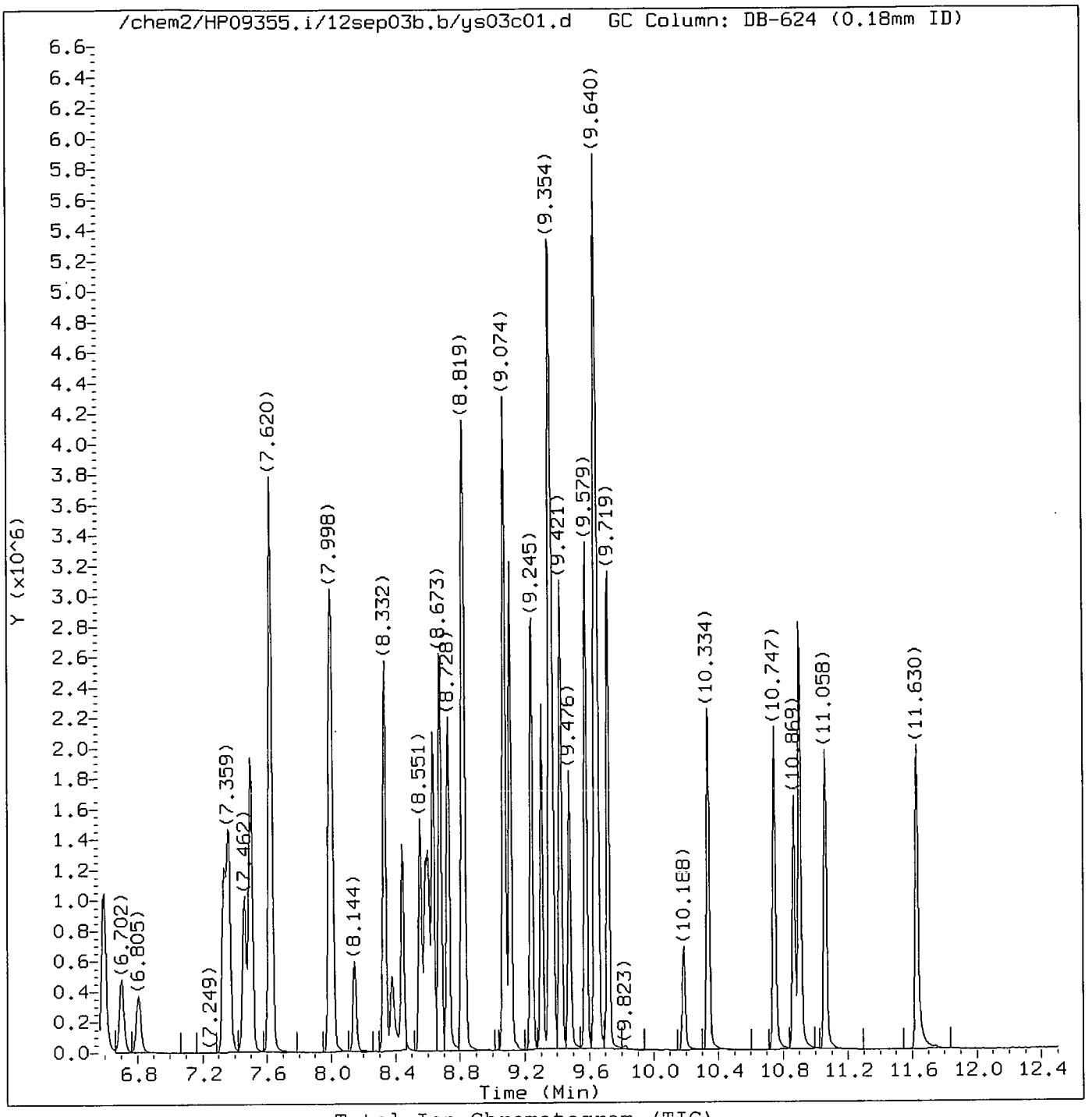
Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03c01.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WI-FRBN
Calibration date and time: 04-SEP-2012 00:43
Date, time and analyst ID of latest file update: 04-Sep-2012 00:44 sas00403

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03c01.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WI-FRBN
Calibration date and time: 04-SEP-2012 00:43
Date, time and analyst ID of latest file update: 04-Sep-2012 00:44 sas00403

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03c01.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WI-FRBN
Calibration date and time: 04-SEP-2012 00:43
Date, time and analyst ID of latest file update: 04-Sep-2012 00:44 sas00403

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.020	85	375531	52.007
3) Chloromethane	(1)	1.062	50	315854	41.682
5) Vinyl Chloride	(1)	1.129	62	291089	40.819
7) Bromomethane	(1)	1.287	94	203220	46.512
8) Chloroethane	(1)	1.330	64	157548	42.474
10) Trichlorofluoromethane	(1)	1.500	101	436899	57.502
13) Ethyl Ether	(1)	1.592	59	170540	38.123
15) Acrolein	(4)	1.665	56	744705	411.380
16) 1,1-Dichloroethene	(1)	1.738	96	201319	49.993
17) Acetone	(1)	1.750	58	91398	87.591
18) Freon 113	(1)	1.762	101	219671	50.072
21) 2-Propanol	(4)	1.829	45	164080	247.546
20) Methyl Iodide	(1)	1.835	142	406115	53.015
22) Carbon Disulfide	(1)	1.884	76	608406	47.978
24) Allyl Chloride	(1)	1.951	41	307612	40.341
25) Methyl Acetate	(1)	1.957	43	344386	46.523
26) Methylene Chloride	(1)	2.036	84	231658	46.857
28)*t-Butyl Alcohol-d10	(4)	2.048	65	264292	250.000
29) t-Butyl Alcohol	(4)	2.103	59	274350M	184.119
30) Acrylonitrile	(1)	2.194	53	163036	40.157
31) trans-1,2-Dichloroethene	(1)	2.230	96	232273	47.939
32) Methyl Tertiary Butyl Ether	(1)	2.243	73	823576	47.019
33) n-Hexane	(1)	2.449	57	296132	34.859
34) 1,1-Dichloroethane	(1)	2.559	63	438679	45.969
36) di-Isopropyl Ether	(1)	2.638	45	723446	38.547
37) 2-Chloro-1,3-Butadiene	(1)	2.644	53	389355	45.389
39) Ethyl t-Butyl Ether	(1)	2.960	59	778505	43.830
40) cis-1,2-Dichloroethene	(1)	3.070	96	265489	48.708
41) 2-Butanone	(1)	3.076	43	478614	79.817
42) 2,2-Dichloropropane	(1)	3.082	77	393911	52.813
43) Propionitrile	(4)	3.125	54	363377	225.315
46) Methacrylonitrile	(1)	3.265	67	437701	112.875
47) Bromochloromethane	(1)	3.283	128	143032	50.683
48) Tetrahydrofuran	(4)	3.325	71	139484	93.486
50) Chloroform	(1)	3.362	83	477695	52.037
52)$Dibromofluoromethane	(1)	3.508	113	223097	53.696
51)$Dibromofluoromethane(mz111)	(1)	3.508	111	226213	53.333
53) 1,1,1-Trichloroethane	(1)	3.538	97	418905	49.018

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03c01.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WI-FRBN
Calibration date and time: 04-SEP-2012 00:43
Date, time and analyst ID of latest file update: 04-Sep-2012 00:44 sas00403

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56) Cyclohexane	(1)	3.599	56	394004	40.400
55) Cyclohexane (mz 69)	(1)	3.599	69	124343	42.791
54) Cyclohexane (mz 84)	(1)	3.599	84	353660	44.811
45) 1,2-Dichloroethene (total)	(1)		96	497762	96.647
57) 1,1-Dichloropropene	(1)	3.684	75	354025	49.028
58) Carbon Tetrachloride	(1)	3.697	117	371231	59.009
62)$1,2-Dichloroethane-d4	(1)	3.818	102	56604	52.104
60)$1,2-Dichloroethane-d4(mz104)	(1)	3.818	104	34996	50.731
61)$1,2-Dichloroethane-d4(mz65)	(1)	3.818	65	312890	56.830
59) Isobutyl Alcohol	(4)	3.824	41	233831	520.402
63) Benzene	(1)	3.879	78	1018384	48.070
64) 1,2-Dichloroethane (mz 98)	(1)	3.891	98	33203	49.583
65) 1,2-Dichloroethane	(1)	3.891	62	417583	52.594
69) t-Amyl Methyl Ether	(1)	4.013	73	761888	46.042
71)*Fluorobenzene	(1)	4.153	96	898772	50.000
72) n-Heptane	(1)	4.171	43	335731	33.179
73) n-Butanol	(4)	4.481	56	414235	1017.546
74) Trichloroethene	(1)	4.518	95	272461	50.556
75) Methylcyclohexane (mz98)	(1)	4.713	98	194633	45.352
76) Methylcyclohexane	(1)	4.713	83	422201	43.805
77) 1,2-Dichloropropane	(1)	4.731	63	261621	45.255
78) Dibromomethane	(1)	4.846	93	188280	51.576
79) 1,4-Dioxane	(4)	4.877	88	64282	595.353
80) Methyl Methacrylate	(1)	4.883	69	271669	43.991
83) Bromodichloromethane	(1)	5.023	83	349992	54.209
85) 2-Nitropropane	(1)	5.248	41	276877	98.411
86) 2-Chloroethyl Vinyl Ether	(1)	5.357	63	212895	43.954
87) cis-1,3-Dichloropropene	(1)	5.491	75	419309	49.564
89) 4-Methyl-2-Pentanone	(1)	5.680	43	960475	85.543
92)$Toluene-d8(mz100)	(2)	5.771	100	595243	47.410
93)$Toluene-d8	(2)	5.771	98	911222	48.475
94) Toluene	(2)	5.844	92	675979	47.088
95) trans-1,3-Dichloropropene	(2)	6.093	75	423726	48.096
96) Ethyl Methacrylate	(2)	6.240	69	417899	40.519
97) 1,1,2-Trichloroethane	(2)	6.282	97	267934	48.863
98) Tetrachloroethene	(2)	6.434	166	330358	50.104
99) 1,3-Dichloropropane	(2)	6.459	76	461603	47.005
101) 2-Hexanone	(2)	6.592	43	806978	83.023

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03c01.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WI-FRBN
Calibration date and time: 04-SEP-2012 00:43
Date, time and analyst ID of latest file update: 04-Sep-2012 00:44 sas00403

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
102) Dibromochloromethane	(2)	6.702	129	294514	54.659
104) 1,2-Dibromoethane	(2)	6.805	107	299097	49.602
106)*Chlorobenzene-d5	(2)	7.335	117	690476	50.000
107) Chlorobenzene	(2)	7.365	112	809958	50.054
108) 1,1,1,2-Tetrachloroethane	(2)	7.462	131	292944	54.782
109) Ethylbenzene	(2)	7.499	91	1368141	48.805
110) m+p-Xylene	(2)	7.620	106	1083008	99.185
113) o-Xylene	(2)	7.992	106	531405	49.254
114) Styrene	(2)	8.004	104	863639	46.951
115) Bromoform	(2)	8.144	173	244757	55.096
112) Xylene (Total)	(2)		106	1614413	148.438
116) Isopropylbenzene	(2)	8.332	105	1421771	50.581
118) Cyclohexanone	(4)	8.375	55	220615	418.116
119)$4-Bromofluorobenzene	(2)	8.442	95	357364	50.937
120)$4-Bromofluorobenzene(mz174)	(2)	8.442	174	325308	53.368
121) Bromobenzene	(3)	8.551	156	383930	47.499
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	462141	44.642
123) 1,2,3-Trichloropropane	(3)	8.606	110	159315	47.656
124) trans-1,4-Dichloro-2-Butene	(3)	8.630	53	365996	102.723
125) n-Propylbenzene	(3)	8.673	91	1678465	47.094
126) 2-Chlorotoluene	(3)	8.728	126	357755	48.084
128) 4-Chlorotoluene	(3)	8.813	126	374280	48.078
127) 1,3,5-Trimethylbenzene	(3)	8.825	105	1262161	47.892
130) tert-Butylbenzene	(3)	9.074	134	286256	47.972
131) Pentachloroethane	(3)	9.074	167	239342	50.962
132) 1,2,4-Trimethylbenzene	(3)	9.111	105	1303702	48.046
133) sec-Butylbenzene	(3)	9.245	105	1554511	47.410
134) 1,3-Dichlorobenzene	(3)	9.306	146	735605	47.605
135) p-Isopropyltoluene	(3)	9.354	119	1405604	47.749
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	439913	50.000
138) 1,4-Dichlorobenzene	(3)	9.373	146	777465	48.978
139) 1,2,3-Trimethylbenzene	(3)	9.421	105	1300465	47.170
141) Benzyl Chloride	(3)	9.476	91	980460	45.769
142) 1,3-Diethylbenzene	(3)	9.579	119	802401	45.668
144) 1,2-Dichlorobenzene	(3)	9.640	146	734469	49.587
143) 1,4-Diethylbenzene	(3)	9.640	119	835396	45.871
145) n-Butylbenzene	(3)	9.652	92	673252M	46.776
146) 1,2-Diethylbenzene	(3)	9.719	119	694417	47.014

M = Compound was manually integrated.
* = Compound is an internal standard.
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Digitally signed by Stephanie A. Selis
on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03c01.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:19 Analyst ID: SAS00403

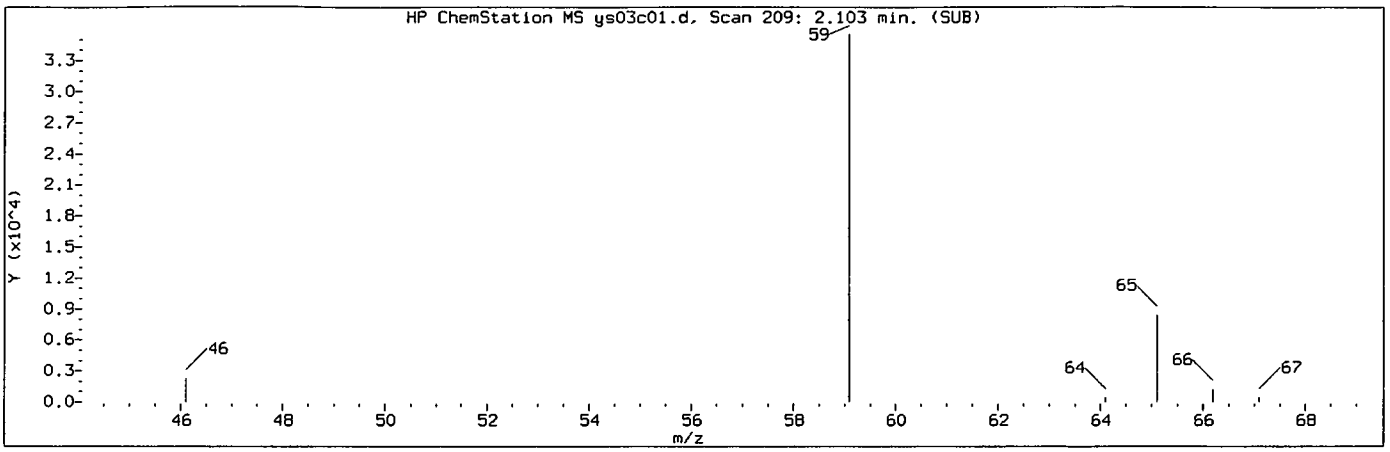
Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WI-FRBN
Calibration date and time: 04-SEP-2012 00:43
Date, time and analyst ID of latest file update: 04-Sep-2012 00:44 sas00403

Sample Name: VSTD050 Lab Sample ID: VSTD050

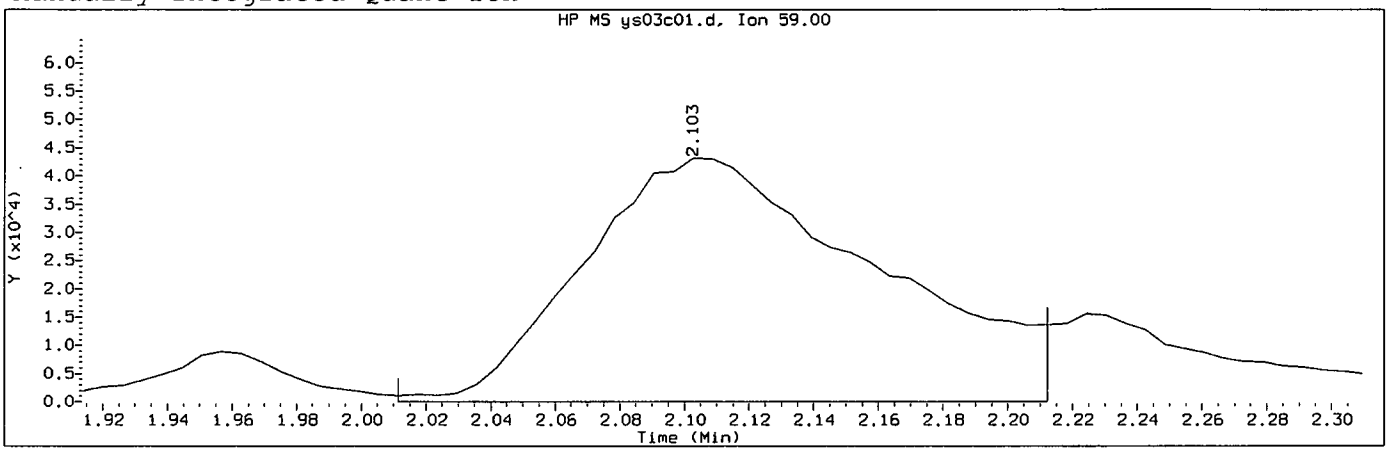
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148)	1,2-Dibromo-3-Chloropropane	(3)	10.188	75	139923	48.830
149)	1,3,5-Trichlorobenzene	(3)	10.340	180	607628	49.531
150)	1,2,4-Trichlorobenzene	(3)	10.747	180	552183	47.857
151)	Hexachlorobutadiene	(3)	10.869	225	265382	46.122
152)	Naphthalene	(3)	10.900	128	1802097	48.338
153)	1,2,3-Trichlorobenzene	(3)	11.064	180	534521	46.984
154)	2-Methylnaphthalene	(3)	11.630	142	910787	39.911

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03c01.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WI-FRBN
Calibration date and time: 04-SEP-2012 00:43
Date, time and analyst ID of latest file update: 04-Sep-2012 00:44 sas00403

Sample Name: VSTD050 Lab Sample ID: VSTD050

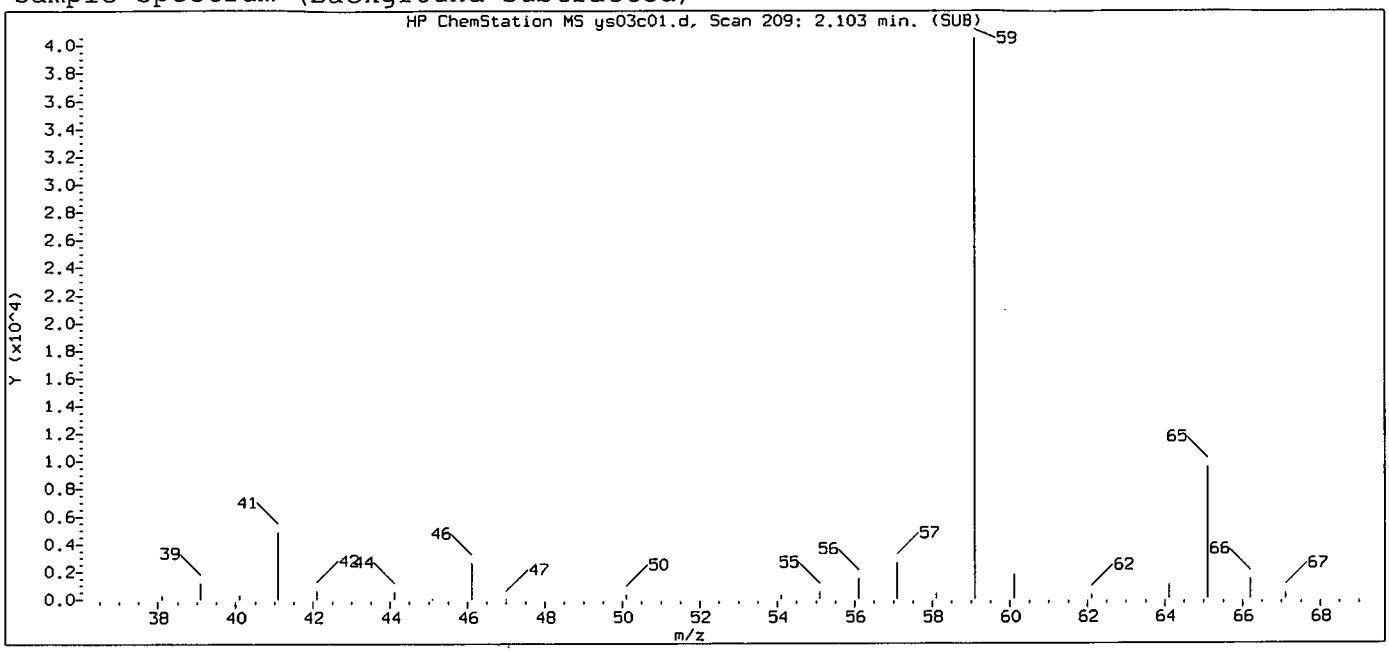
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 209		
Retention Time (minutes)	: 2.103		
Quant Ion	: 59.00		
Area (flag)	: 274350M		
On-Column Amount (ng)	: 184.1189		
Integration start scan	: 193	Integration stop scan:	226
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

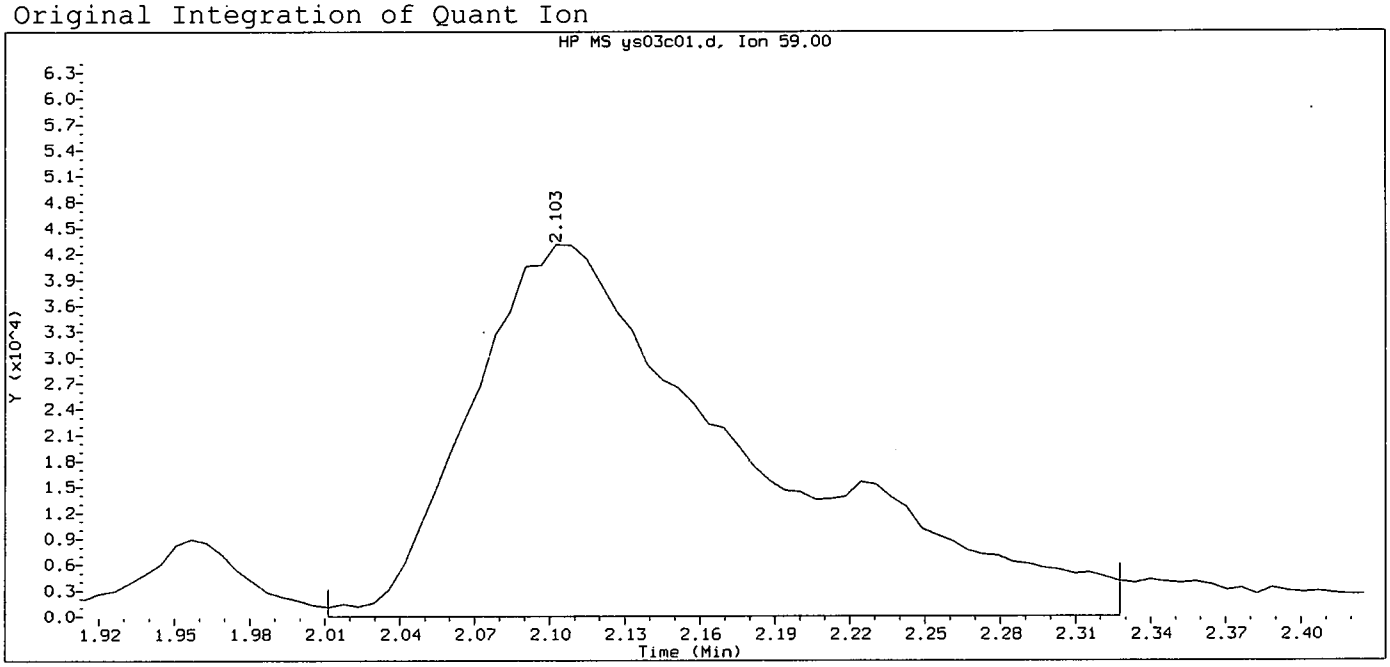
Analyst responsible for change: Digitally signed by Stephanie A. Selis on 09/04/2012 at 00:47. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05.
Parallax ID: cmr00412

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03c01.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:19 Analyst ID: SAS00403

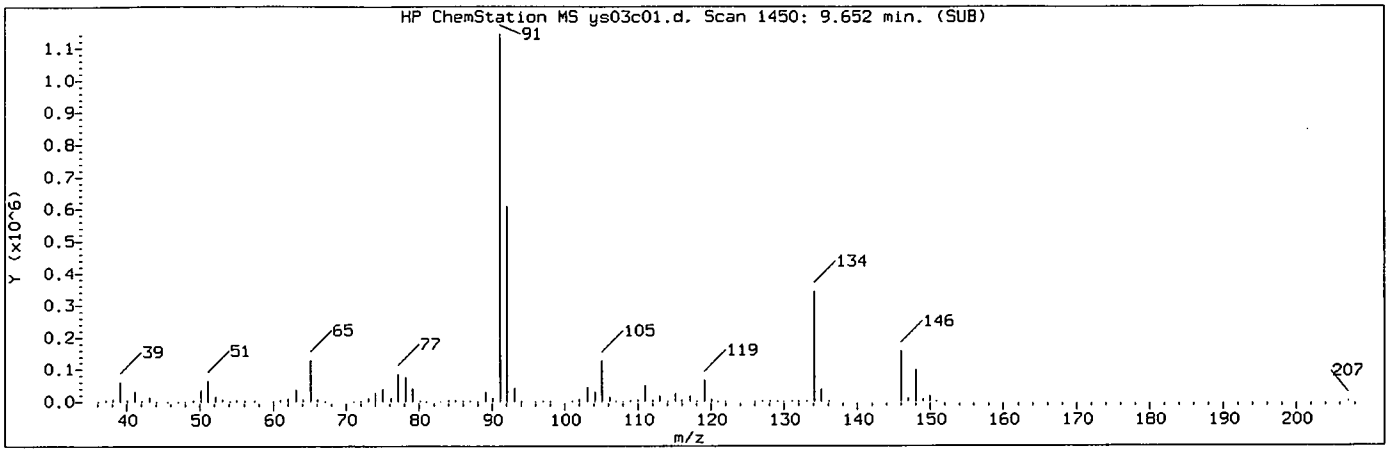
Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WI-FRBN
Calibration date and time: 04-SEP-2012 00:43
Date, time and analyst ID of latest file update: 04-Sep-2012 00:43 sas00403

Sample Name: VSTD050 Lab Sample ID: VSTD050

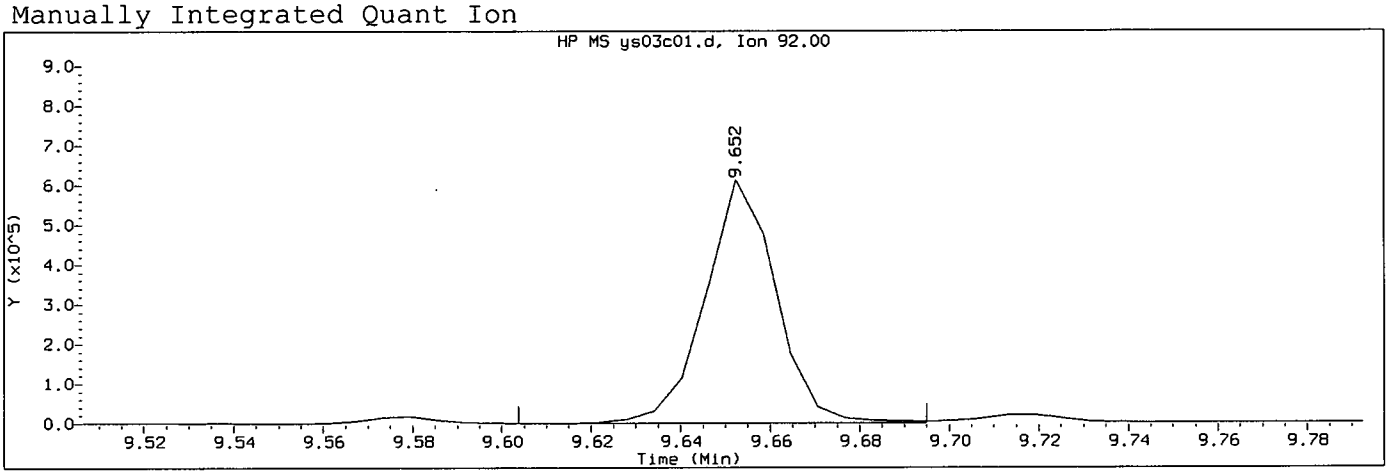
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 209		
Retention Time (minutes)	: 2.103		
Quant Ion	: 59.00		
Area	: 333064		
On-column Amount (ng)	: 223.5215		
Integration start scan	: 193	Integration stop scan:	245
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephanie A. Selis on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03c01.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WI-FRBN
Calibration date and time: 04-SEP-2012 00:43
Date, time and analyst ID of latest file update: 04-Sep-2012 00:44 sas00403

Sample Name: VSTD050 Lab Sample ID: VSTD050

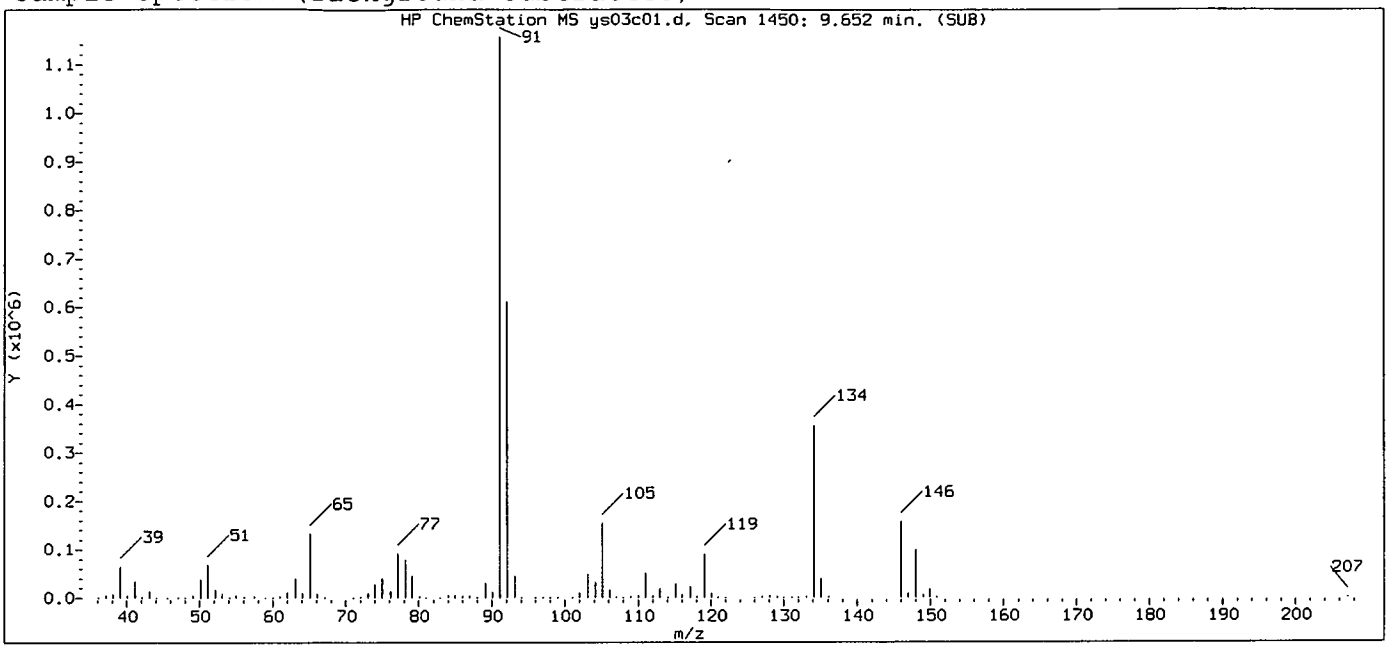
Compound Number	: 145		
Compound Name	: n-Butylbenzene		
Scan Number	: 1450		
Retention Time (minutes)	: 9.652		
Quant Ion	: 92.00		
Area (flag)	: 673252M		
On-Column Amount (ng)	: 46.7762		
Integration start scan	: 1441	Integration stop scan:	1456
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

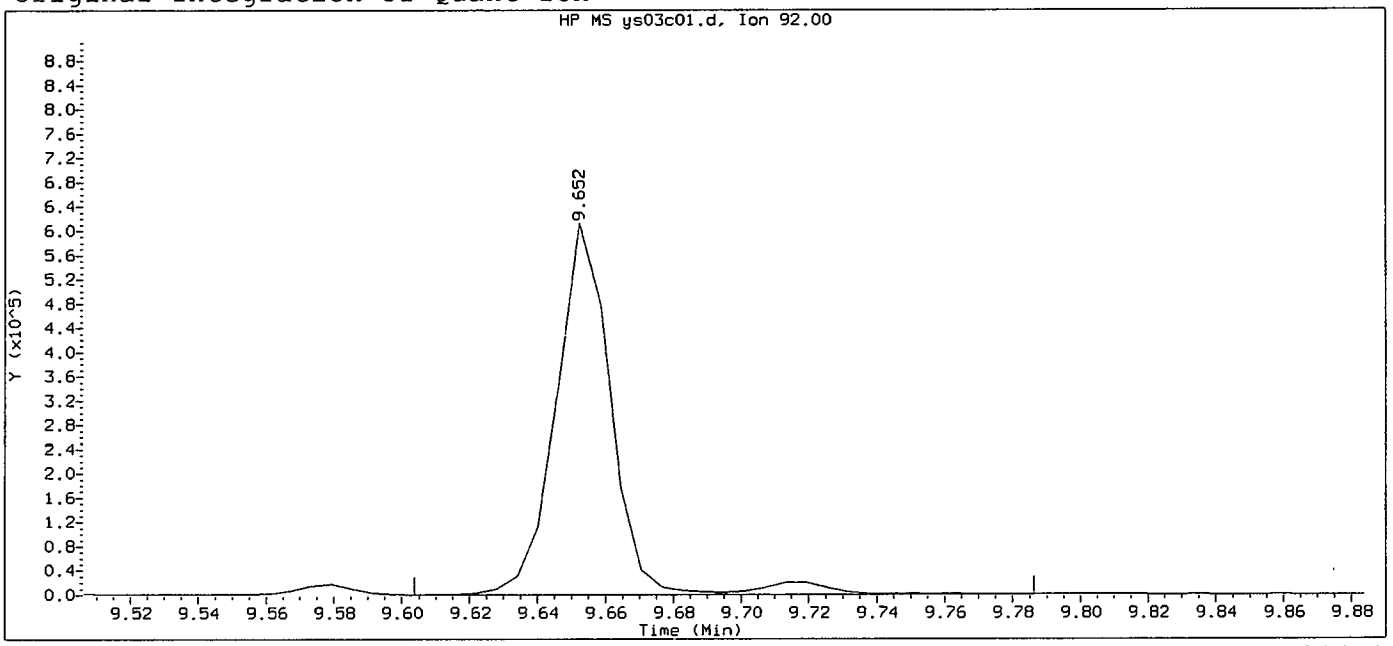
Analyst responsible for change: Digitally signed by Stephanie A. Selis on 09/04/2012 at 00:47. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05.
Parallax ID: cmr00412

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03c01.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WI-FRBN
Calibration date and time: 04-SEP-2012 00:43
Date, time and analyst ID of latest file update: 04-Sep-2012 00:43 sas00403

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 145		
Compound Name	: n-Butylbenzene		
Scan Number	: 1450		
Retention Time (minutes)	: 9.652		
Quant Ion	: 92.00		
Area	: 704405		
On-column Amount (ng)	: 48.9405		
Integration start scan	: 1441	Integration stop scan:	1471
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephanie A. Selis on 09/04/2012 at 00:47.
Target 3.5 esignature user ID: sas00403

Raw QC Data

VBLKY65 Lancaster Laboratories Analysis Summary for GC/MS Volatiles VBLKY65

Data file: /chem2/HP09355.i/12sep03b.b/ys03b05.d Injection date and time: **04-SEP-2012 00:39**
Data file Sample Info. Line: VBLKY65;VBLKY65;1;3;;;PLM;;; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 02:27 sas00403

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8260WPLM**
Calibration date and time (Last Method Edit): 04-SEP-2012 00:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
28) t-Butyl Alcohol-d10	2.054	(-0.006)	201	65	333387	(26)	250.00	
71) Fluorobenzene	4.147	(0.006)	545	96	955740	(6)	50.00	
106) Chlorobenzene-d5	7.335	(0.000)	1069	117	702231	(2)	50.00	
136) 1,4-Dichlorobenzene-d4	9.354	(0.000)	1401	152	411322	(-6)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(1)	3.508	(-0.001)	113	233694	52.894	106%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	3.818	(-0.001)	102	58812	50.909	102%		77 - 113
93) Toluene-d8	(2)	5.771	(0.000)	98	929810	48.636	97%		80 - 113
119) 4-Bromofluorobenzene	(2)	8.442	(0.000)	95	335779	47.059	94%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
5) Vinyl Chloride	(1)				Not Detected					1	5
7) Bromomethane	(1)				Not Detected					1	5
8) Chloroethane	(1)				Not Detected					1	5
10) Trichlorofluoromethane	(1)				Not Detected					1	5
13) Ethyl Ether	(1)				Not Detected					2	5
15) Acrolein	(4)				Not Detected					40	100
16) 1,1-Dichloroethene	(1)				Not Detected					0.8	5
18) Freon 113	(1)				Not Detected					2	10
17) Acetone	(1)				Not Detected					6	20
20) Methyl Iodide	(1)				Not Detected					1	5
21) 2-Propanol	(4)				Not Detected					50	100
22) Carbon Disulfide	(1)				Not Detected					1	5
24) Allyl Chloride	(1)				Not Detected					1	5
25) Methyl Acetate	(1)				Not Detected					1	5
26) Methylene Chloride	(1)				Not Detected					2	5
29) t-Butyl Alcohol	(4)				Not Detected					10	80
30) Acrylonitrile	(1)				Not Detected					4	20
31) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
32) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
33) n-Hexane	(1)				Not Detected					2	5
45) 1,2-Dichloroethene (total)	(1)				Not Detected					0.8	5
34) 1,1-Dichloroethane	(1)				Not Detected					1	5
36) di-Isopropyl Ether	(1)				Not Detected					0.8	5
37) 2-Chloro-1,3-Butadiene	(1)				Not Detected					1	5
39) Ethyl t-Butyl Ether	(1)				Not Detected					0.8	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
41) 2-Butanone	(1)				Not Detected					3	10
42) 2,2-Dichloropropane	(1)				Not Detected					1	5
43) Propionitrile	(4)				Not Detected					30	100

Digitally signed by Stephanie A. Selis on 09/04/2012 at 02:30. Target 3.5 esignature user ID: sas00403

Data file: /chem2/HP09355.i/12sep03b.b/ys03b05.d Injection date and time: **04-SEP-2012 00:39**
Data file Sample Info. Line: VBLKY65;VBLKY65;1;3;;;PLM;;; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 02:27 sas00403

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8260WPLM**
Calibration date and time (Last Method Edit): 04-SEP-2012 00:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
46) Methacrylonitrile	(1)				Not Detected					10	50
47) Bromochloromethane	(1)				Not Detected					1	5
48) Tetrahydrofuran	(4)				Not Detected					4	10
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
56) Cyclohexane	(1)				Not Detected					2	5
57) 1,1-Dichloropropene	(1)				Not Detected					1	5
58) Carbon Tetrachloride	(1)				Not Detected					1	5
59) Isobutyl Alcohol	(4)				Not Detected					100	250
63) Benzene	(1)				Not Detected					0.5	5
65) 1,2-Dichloroethane	(1)				Not Detected					1	5
69) t-Amyl Methyl Ether	(1)				Not Detected					0.8	5
72) n-Heptane	(1)				Not Detected					2	5
73) n-Butanol	(4)				Not Detected					100	250
74) Trichloroethene	(1)				Not Detected					1	5
77) 1,2-Dichloropropane	(1)				Not Detected					1	5
76) Methylcyclohexane	(1)				Not Detected					1	5
80) Methyl Methacrylate	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
79) 1,4-Dioxane	(4)				Not Detected					70	250
83) Bromodichloromethane	(1)				Not Detected					1	5
85) 2-Nitropropane	(1)				Not Detected					2	10
86) 2-Chloroethyl Vinyl Ether	(1)				Not Detected					2	10
87) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
89) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
94) Toluene	(2)				Not Detected					0.7	5
95) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
96) Ethyl Methacrylate	(2)				Not Detected					1	5
97) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5
98) Tetrachloroethene	(2)				Not Detected					0.8	5
99) 1,3-Dichloropropane	(2)				Not Detected					1	5
101) 2-Hexanone	(2)				Not Detected					3	10
102) Dibromochloromethane	(2)				Not Detected					1	5
104) 1,2-Dibromoethane	(2)				Not Detected					1	5
107) Chlorobenzene	(2)				Not Detected					0.8	5
108) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
109) Ethylbenzene	(2)				Not Detected					0.8	5
110) m+p-Xylene	(2)				Not Detected					0.8	5
112) Xylene (Total)	(2)				Not Detected					0.8	5
113) o-Xylene	(2)				Not Detected					0.8	5
114) Styrene	(2)				Not Detected					1	5
115) Bromoform	(2)				Not Detected					1	5
116) Isopropylbenzene	(2)				Not Detected					1	5
118) Cyclohexanone	(4)				Not Detected					55	250
122) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
124) trans-1,4-Dichloro-2-Butene	(3)				Not Detected					15	50
121) Bromobenzene	(3)				Not Detected					1	5
123) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
125) n-Propylbenzene	(3)				Not Detected					1	5
126) 2-Chlorotoluene	(3)				Not Detected					1	5
127) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
128) 4-Chlorotoluene	(3)				Not Detected					1	5
130) tert-Butylbenzene	(3)				Not Detected					1	5
131) Pentachloroethane	(3)				Not Detected					1	5

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Data file: /chem2/HP09355.i/12sep03b.b/ys03b05.d
Data file Sample Info. Line: VBLKY65;VBLKY65;1;3;;;PLM;;;
Date, time and analyst ID of latest file update: 04-Sep-2012 02:27 sas00403

Injection date and time: **04-SEP-2012 00:39**
Instrument ID: **HP09355.i** Batch: **Y122472AA**

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8260WPLM**
Calibration date and time (Last Method Edit): 04-SEP-2012 00:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

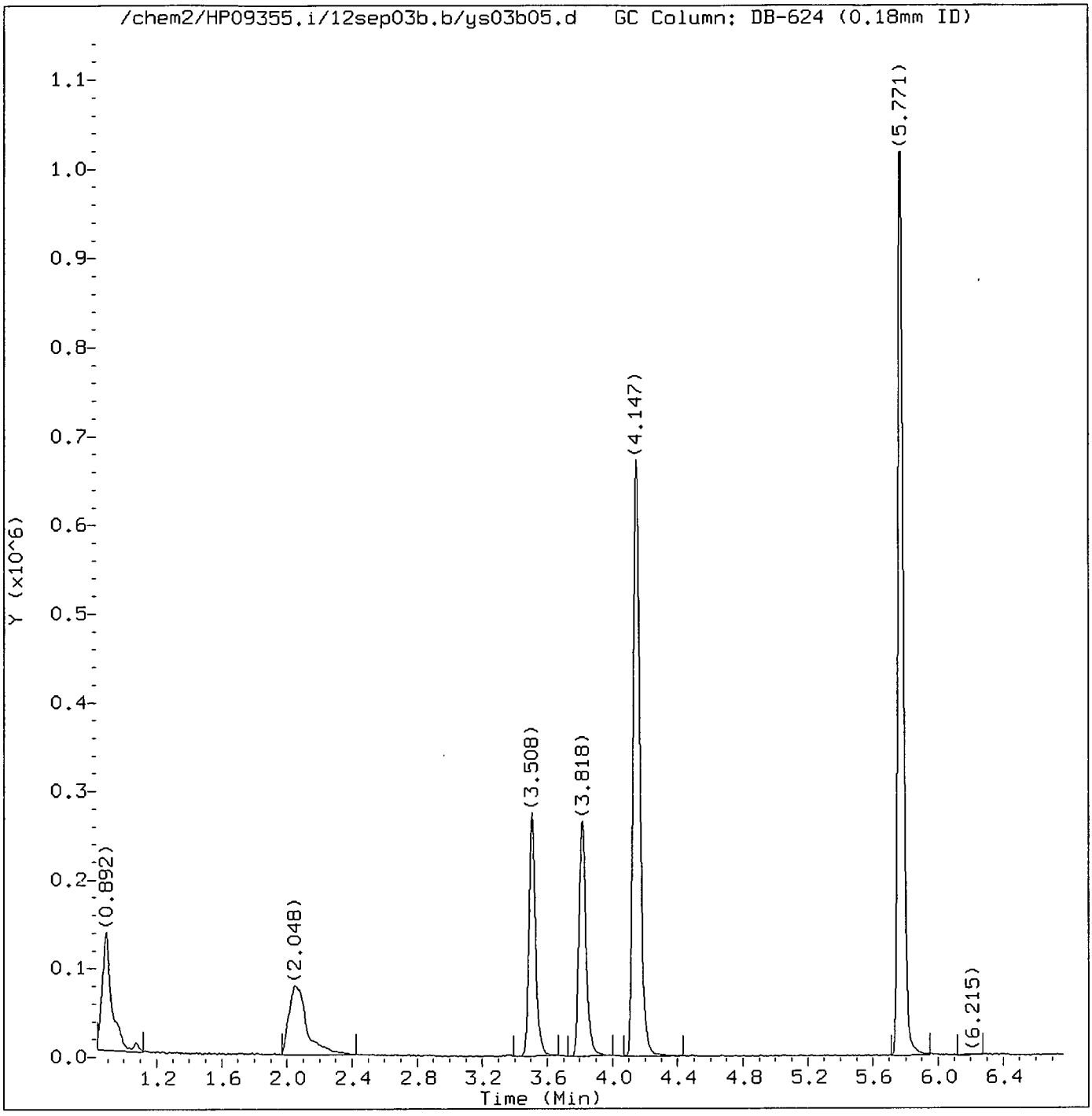
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
132) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
133) sec-Butylbenzene	(3)				Not Detected					1	5
135) p-Isopropyltoluene	(3)				Not Detected					1	5
134) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
138) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2,3-Trimethylbenzene	(3)				Not Detected					1	5
141) Benzyl Chloride	(3)				Not Detected					1	5
142) 1,3-Diethylbenzene	(3)				Not Detected					1	5
143) 1,4-Diethylbenzene	(3)				Not Detected					1	5
145) n-Butylbenzene	(3)				Not Detected					1	5
144) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
146) 1,2-Diethylbenzene	(3)				Not Detected					1	5
148) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
149) 1,3,5-Trichlorobenzene	(3)				Not Detected					1	5
150) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
151) Hexachlorobutadiene	(3)				Not Detected					2	5
152) Naphthalene	(3)				Not Detected					1	5
153) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5
154) 2-Methylnaphthalene	(3)				Not Detected					2	5

Total number of targets = 104

Digitally signed by Stephanie A. Selis on 09/04/2012 at 02:30. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

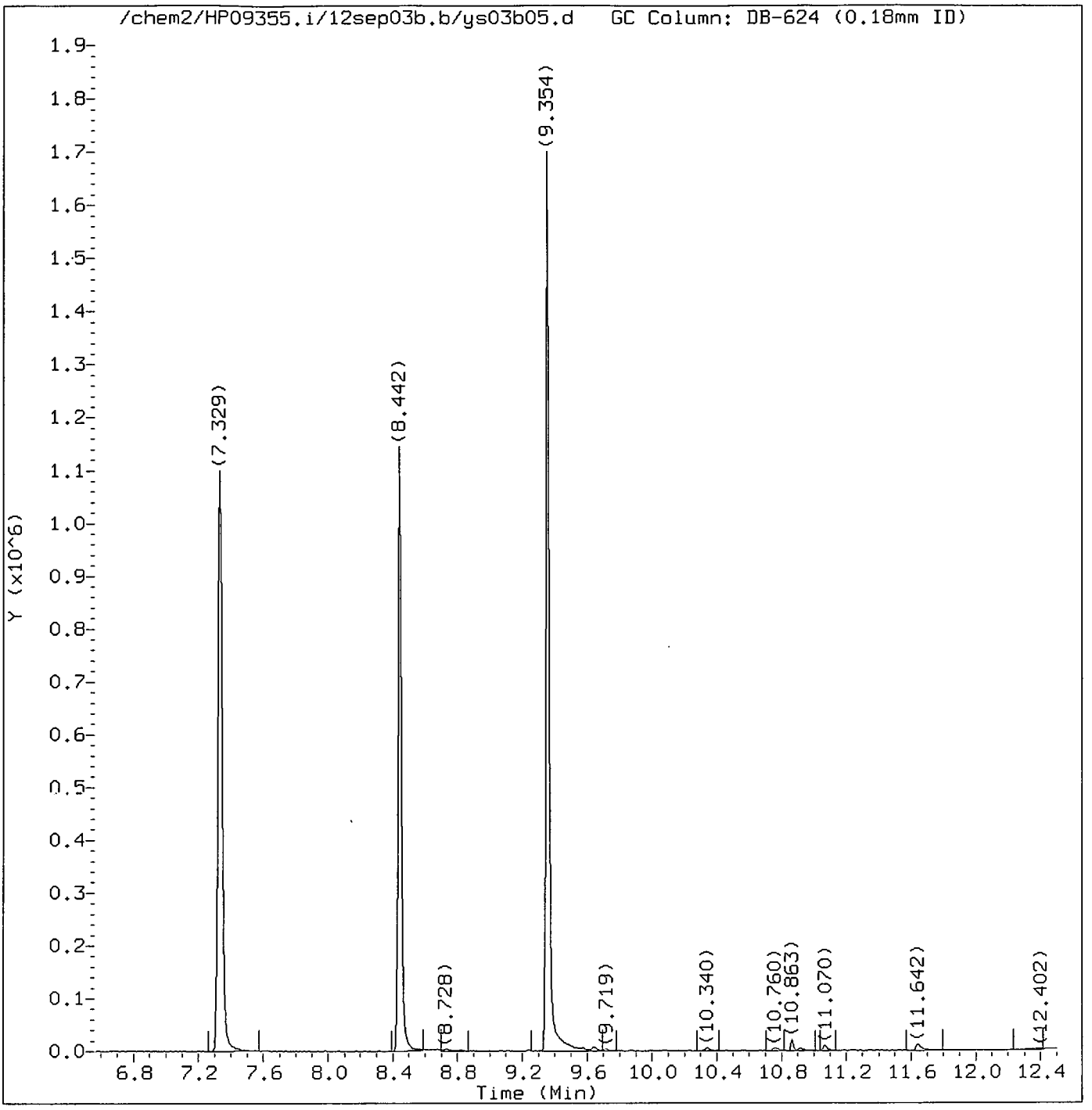
Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03b05.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:39 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:27 sas00403

Sample Name: VBLKY65 Lab Sample ID: VBLKY65

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 02:30.
Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03b05.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:39 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:27 sas00403

Sample Name: VBLKY65 Lab Sample ID: VBLKY65

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 02:30.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03b05.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 00:39 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:27 sas00403

Sample Name: VBLKY65 Lab Sample ID: VBLKY65

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
28)*t-Butyl Alcohol-d10	(4)	2.054	65	333387	250.000
52)$Dibromofluoromethane	(1)	3.508	113	233694	52.894
62)$1,2-Dichloroethane-d4	(1)	3.818	102	58812	50.909
71)*Fluorobenzene	(1)	4.147	96	955740	50.000
93)$Toluene-d8	(2)	5.771	98	929810	48.636
106)*Chlorobenzene-d5	(2)	7.335	117	702231	50.000
119)$4-Bromofluorobenzene	(2)	8.442	95	335779	47.059
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	411322	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 02:30.
Target 3.5 esignature user ID: sas00403

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSY65

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSY65

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03l31a.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	15	
74-87-3	Chloromethane	15	
75-01-4	Vinyl Chloride	16	
74-83-9	Bromomethane	17	
75-00-3	Chloroethane	16	
75-69-4	Trichlorofluoromethane	21	
60-29-7	Ethyl Ether	15	
107-02-8	Acrolein	100	
75-35-4	1,1-Dichloroethene	20	
67-64-1	Acetone	160	
76-13-1	Freon 113	19	
74-88-4	Methyl Iodide	20	
67-63-0	2-Propanol	140	
75-15-0	Carbon Disulfide	18	
107-05-1	Allyl Chloride	17	
79-20-9	Methyl Acetate	21	
75-09-2	Methylene Chloride	19	
75-65-0	t-Butyl Alcohol	160	
107-13-1	Acrylonitrile	82	
156-60-5	trans-1,2-Dichloroethene	19	
1634-04-4	Methyl Tertiary Butyl Ether	19	
110-54-3	n-Hexane	15	
75-34-3	1,1-Dichloroethane	18	
108-20-3	di-Isopropyl Ether	16	
126-99-8	2-Chloro-1,3-Butadiene	17	
637-92-3	Ethyl t-Butyl Ether	18	
156-59-2	cis-1,2-Dichloroethene	20	
78-93-3	2-Butanone	130	
594-20-7	2,2-Dichloropropane	20	
107-12-0	Propionitrile	140	

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSY65

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSY65

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03l31a.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (total)	39	
126-98-7	Methacrylonitrile	140	
74-97-5	Bromochloromethane	20	
109-99-9	Tetrahydrofuran	93	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	20	
110-82-7	Cyclohexane	16	
563-58-6	1,1-Dichloropropene	19	
56-23-5	Carbon Tetrachloride	21	
78-83-1	Isobutyl Alcohol	400	
71-43-2	Benzene	19	
107-06-2	1,2-Dichloroethane	19	
994-05-8	t-Amyl Methyl Ether	18	
142-82-5	n-Heptane	14	
71-36-3	n-Butanol	770	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	18	
78-87-5	1,2-Dichloropropane	18	
74-95-3	Dibromomethane	19	
123-91-1	1,4-Dioxane	420	
80-62-6	Methyl Methacrylate	16	
75-27-4	Bromodichloromethane	20	
79-46-9	2-Nitropropane	16	
110-75-8	2-Chloroethyl Vinyl Ether	16	
10061-01-5	cis-1,3-Dichloropropene	20	
108-10-1	4-Methyl-2-Pentanone	82	
108-88-3	Toluene	18	
10061-02-6	trans-1,3-Dichloropropene	18	
97-63-2	Ethyl Methacrylate	15	
79-00-5	1,1,2-Trichloroethane	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSY65

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSY65

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03131a.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
127-18-4	Tetrachloroethene	19	
142-28-9	1,3-Dichloropropane	18	
591-78-6	2-Hexanone	79	
124-48-1	Dibromochloromethane	20	
106-93-4	1,2-Dibromoethane	19	
108-90-7	Chlorobenzene	19	
630-20-6	1,1,1,2-Tetrachloroethane	20	
100-41-4	Ethylbenzene	18	
179601-23-1	m+p-Xylene	38	
1330-20-7	Xylene (Total)	56	
95-47-6	o-Xylene	18	
100-42-5	Styrene	17	
75-25-2	Bromoform	19	
98-82-8	Isopropylbenzene	19	
108-94-1	Cyclohexanone	390	
108-86-1	Bromobenzene	18	
79-34-5	1,1,2,2-Tetrachloroethane	18	
96-18-4	1,2,3-Trichloropropane	18	
110-57-6	trans-1,4-Dichloro-2-Butene	86	
103-65-1	n-Propylbenzene	18	
95-49-8	2-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	18	
106-43-4	4-Chlorotoluene	18	
98-06-6	tert-Butylbenzene	18	
76-01-7	Pentachloroethane	19	
95-63-6	1,2,4-Trimethylbenzene	18	
135-98-8	sec-Butylbenzene	18	
541-73-1	1,3-Dichlorobenzene	18	
99-87-6	p-Isopropyltoluene	18	
106-46-7	1,4-Dichlorobenzene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSY65

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSY65

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03l31a.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
526-73-8	1,2,3-Trimethylbenzene	19	
100-44-7	Benzyl Chloride	17	
141-93-5	1,3-Diethylbenzene	18	
105-05-5	1,4-Diethylbenzene	18	
95-50-1	1,2-Dichlorobenzene	19	
104-51-8	n-Butylbenzene	18	
135-01-3	1,2-Diethylbenzene	19	
96-12-8	1,2-Dibromo-3-Chloropropane	17	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	19	
87-68-3	Hexachlorobutadiene	18	
91-20-3	Naphthalene	18	
87-61-6	1,2,3-Trichlorobenzene	18	
91-57-6	2-Methylnaphthalene	15	
25340-17-4	Diethylbenzene (total)	55	

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSY65

Data file: /chem2/HP09355.i/12sep03b.b/ys03131a.d Injection date and time: **04-SEP-2012 01:58**
Data file Sample Info. Line: LCSY65;LCSY65;1;3;LCS;;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 02:29 sas00403

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8260WPLM**
Calibration date and time (Last Method Edit): 04-SEP-2012 00:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
28) t-Butyl Alcohol-d10	2.036	(0.012)	198	65	318863	(21)	250.00	
71) Fluorobenzene	4.141	(0.012)	544	96	1043907	(16)	50.00	
106) Chlorobenzene-d5	7.328	(0.006)	1068	117	782398	(13)	50.00	
136) 1,4-Dichlorobenzene-d4	9.354	(0.000)	1401	152	480543	(9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(1)	3.496	(0.000)	113	250158	51.838	104%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	3.806	(0.000)	102	65223	51.690	103%		77 - 113
93) Toluene-d8	(2)	5.765	(0.000)	98	1045559	49.087	98%		80 - 113
119) 4-Bromofluorobenzene	(2)	8.436	(0.000)	95	389334	48.974	98%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(1)	1.014	(0.000)	85	128203	15.286	15.29			1	5
3) Chloromethane	(1)	1.044	(0.003)	50	133629	15.183	15.18			1	5
5) Vinyl Chloride	(1)	1.117	(0.002)	62	130651	15.774	15.77			1	5
7) Bromomethane	(1)	1.269	(0.003)	94	85833	16.914	16.91			1	5
8) Chloroethane	(1)	1.318	(0.002)	64	69906	16.226	16.23			1	5
10) Trichlorofluoromethane	(1)	1.482	(0.003)	101	187935	21.296	21.30			1	5
13) Ethyl Ether	(1)	1.579	(0.001)	59	77381	14.893	14.89			2	5
15) Acrolein	(4)	1.652	(0.001)	56	225777	103.376	103.38			40	100
16) 1,1-Dichloroethene	(1)	1.725	(0.001)	96	93857	20.067	20.07			0.8	5
18) Freon 113	(1)	1.756	(0.000)	101	97988	19.230	19.23			2	10
17) Acetone	(1)	1.744	(0.000)	58	196941	162.497	162.50			6	20
20) Methyl Iodide	(1)	1.823	(0.001)	142	178135	20.021	20.02			1	5
21) 2-Propanol	(4)	1.811	(0.003)	45	109666	137.136	137.14			50	100
22) Carbon Disulfide	(1)	1.871	(0.001)	76	267165	18.139	18.14			1	5
24) Allyl Chloride	(1)	1.938	(0.001)	41	147195	16.620	16.62			1	5
25) Methyl Acetate	(1)	1.950	(0.000)	43	183656	21.361	21.36			1	5
26) Methylene Chloride	(1)	2.024	(0.001)	84	109681	19.101	19.10			2	5
29) t-Butyl Alcohol	(4)	2.090	(-0.000)	59	284036M	157.996	158.00			10	80
30) Acrylonitrile	(1)	2.182	(0.001)	53	388469	82.379	82.38			4	20
31) trans-1,2-Dichloroethene	(1)	2.218	(0.001)	96	106992	19.012	19.01			0.8	5
32) Methyl Tertiary Butyl Ether	(1)	2.230	(0.001)	73	386389	18.993	18.99			0.5	5
33) n-Hexane	(1)	2.431	(0.002)	57	146182	14.815	14.82			2	5
45) 1,2-Dichloroethene (total)	(1)			96	232046	38.765	38.77			0.8	5
34) 1,1-Dichloroethane	(1)	2.547	(0.001)	63	202677	18.286	18.29			1	5
36) di-Isopropyl Ether	(1)	2.620	(0.002)	45	345633	15.856	15.86			0.8	5
37) 2-Chloro-1,3-Butadiene	(1)	2.632	(0.001)	53	170478	17.111	17.11			1	5
39) Ethyl t-Butyl Ether	(1)	2.942	(0.002)	59	362789	17.585	17.59			0.8	5
40) cis-1,2-Dichloroethene	(1)	3.058	(0.000)	96	125054	19.753	19.75			0.8	5
41) 2-Butanone	(1)	3.058	(0.002)	43	932805	133.933	133.93			3	10
42) 2,2-Dichloropropane	(1)	3.070	(0.000)	77	169948	19.618	19.62			1	5
43) Propionitrile	(4)	3.106	(-0.000)	54	268829	138.162	138.16			30	100

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/12sep03b.b/ys03131a.d Injection date and time: **04-SEP-2012 01:58**
Data file Sample Info. Line: LCSY65;LCSY65;1;3;LCS;;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 02:29 sas00403

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8260WPLM**
Calibration date and time (Last Method Edit): 04-SEP-2012 00:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
46) Methacrylonitrile	(1)	3.252(0.000)	67	621227	137.930	137.93			10	50
47) Bromochloromethane	(1)	3.271(0.000)	128	64553	19.694	19.69			1	5
48) Tetrahydrofuran	(4)	3.313(-0.003)	71	167734	93.180	93.18			4	10
50) Chloroform	(1)	3.350(0.000)	83	203643	19.099	19.10			0.8	5
53) 1,1,1-Trichloroethane	(1)	3.526(0.000)	97	194702	19.615	19.62			0.8	5
56) Cyclohexane	(1)	3.587(0.000)	56	181531	16.026	16.03			2	5
57) 1,1-Dichloropropene	(1)	3.672(0.000)	75	155739	18.569	18.57			1	5
58) Carbon Tetrachloride	(1)	3.684(0.000)	117	151054	20.672	20.67			1	5
59) Isobutyl Alcohol	(4)	3.806(-0.002)	41	215246	397.056	397.06			100	250
63) Benzene	(1)	3.867(0.000)	78	467121	18.984	18.98			0.5	5
65) 1,2-Dichloroethane	(1)	3.879(0.000)	62	178410	19.346	19.35			1	5
69) t-Amyl Methyl Ether	(1)	4.001(0.000)	73	343919	17.894	17.89			0.8	5
72) n-Heptane	(1)	4.159(-0.000)	43	163624	13.922	13.92			2	5
73) n-Butanol	(4)	4.469(-0.007)	56	378242	770.117	770.12			100	250
74) Trichloroethene	(1)	4.500(0.001)	95	121210	19.364	19.36			1	5
77) 1,2-Dichloropropane	(1)	4.719(-0.000)	63	118596	17.663	17.66			1	5
76) Methylcyclohexane	(1)	4.700(-0.000)	83	202837	18.119	18.12			1	5
80) Methyl Methacrylate	(1)	4.877(-0.001)	69	118093	16.464	16.46			1	5
78) Dibromomethane	(1)	4.834(-0.000)	93	81219	19.155	19.16			1	5
79) 1,4-Dioxane	(4)	4.865(-0.008)	88	55038	422.501	422.50			70	250
83) Bromodichloromethane	(1)	5.011(-0.000)	83	146716	19.565	19.56			1	5
85) 2-Nitropropane	(1)	5.242(-0.002)	41	51708	15.823	15.82			2	10
86) 2-Chloroethyl Vinyl Ether	(1)	5.351(-0.002)	63	89598	15.927	15.93			2	10
87) cis-1,3-Dichloropropene	(1)	5.479(-0.000)	75	195321	19.878	19.88			1	5
89) 4-Methyl-2-Pentanone	(1)	5.668(-0.001)	43	1063404	81.542	81.54			3	10
94) Toluene	(2)	5.832(0.001)	92	299058	18.384	18.38			0.7	5
95) trans-1,3-Dichloropropene	(2)	6.087(0.000)	75	180988	18.130	18.13			1	5
96) Ethyl Methacrylate	(2)	6.233(0.000)	69	178619	15.284	15.28			1	5
97) 1,1,2-Trichloroethane	(2)	6.276(0.000)	97	120690	19.424	19.42			0.8	5
98) Tetrachloroethene	(2)	6.422(0.000)	166	141818	18.982	18.98			0.8	5
99) 1,3-Dichloropropane	(2)	6.452(0.000)	76	204491	18.377	18.38			1	5
101) 2-Hexanone	(2)	6.586(0.000)	43	874141	79.367	79.37			3	10
102) Dibromochloromethane	(2)	6.696(0.000)	129	121422	19.887	19.89			1	5
104) 1,2-Dibromoethane	(2)	6.799(0.000)	107	128351	18.785	18.78			1	5
107) Chlorobenzene	(2)	7.359(-0.000)	112	349118	19.040	19.04			0.8	5
108) 1,1,1,2-Tetrachloroethane	(2)	7.456(-0.000)	131	120547	19.894	19.89			1	5
109) Ethylbenzene	(2)	7.493(-0.000)	91	585818	18.443	18.44			0.8	5
110) m+p-Xylene	(2)	7.614(-0.000)	106	465124	37.593	37.59			0.8	5
112) Xylene (Total)	(2)		106	690398	56.019	56.02			0.8	5
113) o-Xylene	(2)	7.985(-0.000)	106	225274	18.427	18.43			0.8	5
114) Styrene	(2)	8.004(-0.000)	104	358674	17.208	17.21			1	5
115) Bromoform	(2)	8.138(-0.000)	173	93174	18.510	18.51			1	5
116) Isopropylbenzene	(2)	8.326(-0.000)	105	602704	18.923	18.92			1	5
118) Cyclohexanone	(4)	8.375(-0.024)	55	249832	392.455	392.45			55	250
122) 1,1,2,2-Tetrachloroethane	(3)	8.582(-0.000)	83	206376	18.250	18.25			1	5
124) trans-1,4-Dichloro-2-Butene	(3)	8.630(0.000)	53	334381	85.914	85.91			15	50
121) Bromobenzene	(3)	8.551(-0.000)	156	160975	18.232	18.23			1	5
123) 1,2,3-Trichloropropane	(3)	8.600(0.000)	110	67503	18.485	18.48			1	5
125) n-Propylbenzene	(3)	8.673(0.000)	91	710160	18.241	18.24			1	5
126) 2-Chlorotoluene	(3)	8.722(0.000)	126	151480	18.638	18.64			1	5
127) 1,3,5-Trimethylbenzene	(3)	8.819(0.000)	105	528343	18.353	18.35			1	5
128) 4-Chlorotoluene	(3)	8.813(0.000)	126	155001	18.227	18.23			1	5
130) tert-Butylbenzene	(3)	9.068(0.000)	134	117918	18.090	18.09			1	5
131) Pentachloroethane	(3)	9.068(0.000)	167	97376	18.981	18.98			1	5

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Data file: /chem2/HP09355.i/12sep03b.b/ys03131a.d Injection date and time: **04-SEP-2012 01:58**
Data file Sample Info. Line: LCSY65;LCSY65;1;3;LCS;;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 02:29 sas00403

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8260WPLM**
Calibration date and time (Last Method Edit): 04-SEP-2012 00:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

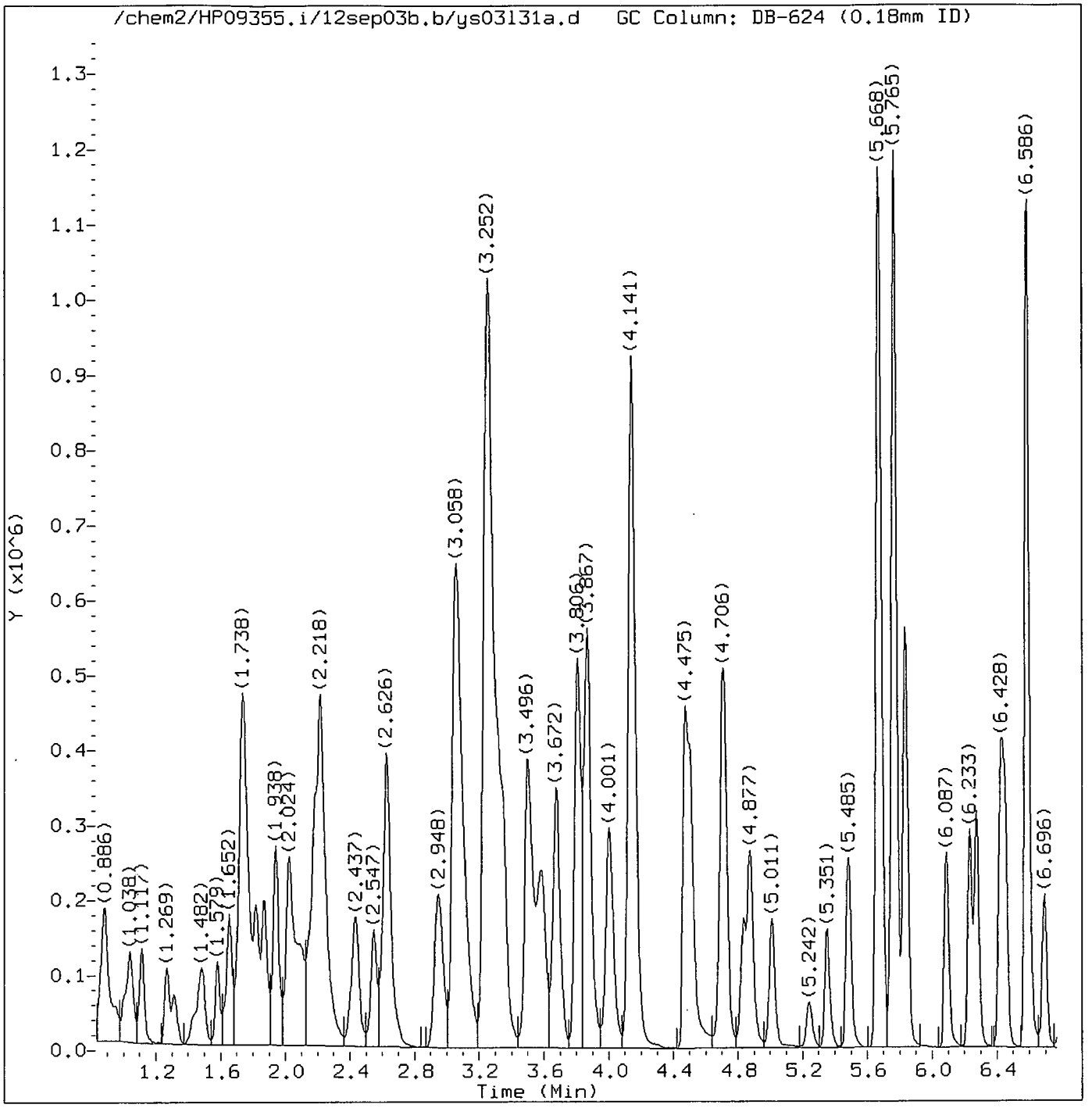
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
132) 1,2,4-Trimethylbenzene	(3)	9.105(0.000)	105	535117	18.054	18.05			1	5
133) sec-Butylbenzene	(3)	9.239(0.000)	105	654011	18.260	18.26			1	5
135) p-Isopropyltoluene	(3)	9.354(0.000)	119	583800	18.155	18.16			1	5
134) 1,3-Dichlorobenzene	(3)	9.300(0.000)	146	304326	18.029	18.03			1	5
138) 1,4-Dichlorobenzene	(3)	9.372(-0.000)	146	325949	18.798	18.80			1	5
139) 1,2,3-Trimethylbenzene	(3)	9.415(0.000)	105	561303	18.638	18.64			1	5
141) Benzyl Chloride	(3)	9.476(-0.000)	91	395835	16.916	16.92			1	5
142) 1,3-Diethylbenzene	(3)	9.573(0.000)	119	342398	17.840	17.84			1	5
143) 1,4-Diethylbenzene	(3)	9.634(0.000)	119	362833	18.238	18.24			1	5
145) n-Butylbenzene	(3)	9.652(-0.000)	92	275223M	17.505	17.51			1	5
144) 1,2-Dichlorobenzene	(3)	9.634(0.000)	146	312499	19.314	19.31			1	5
146) 1,2-Diethylbenzene	(3)	9.713(0.000)	119	300287	18.612	18.61			1	5
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182(0.000)	75	52338	16.720	16.72			2	5
149) 1,3,5-Trichlorobenzene	(3)	10.334(0.000)	180	254348	18.980	18.98			1	5
150) 1,2,4-Trichlorobenzene	(3)	10.747(-0.000)	180	233205	18.503	18.50			1	5
151) Hexachlorobutadiene	(3)	10.863(0.000)	225	110681	17.610	17.61			2	5
152) Naphthalene	(3)	10.900(-0.000)	128	745767	18.313	18.31			1	5
153) 1,2,3-Trichlorobenzene	(3)	11.058(0.000)	180	226888	18.257	18.26			1	5
154) 2-Methylnaphthalene	(3)	11.630(-0.000)	142	371842	14.917	14.92			2	5

M = Compound was manually integrated.

Total number of targets = 104

Digitally signed by Stephanie A. Selis on 09/04/2012 at 02:30. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

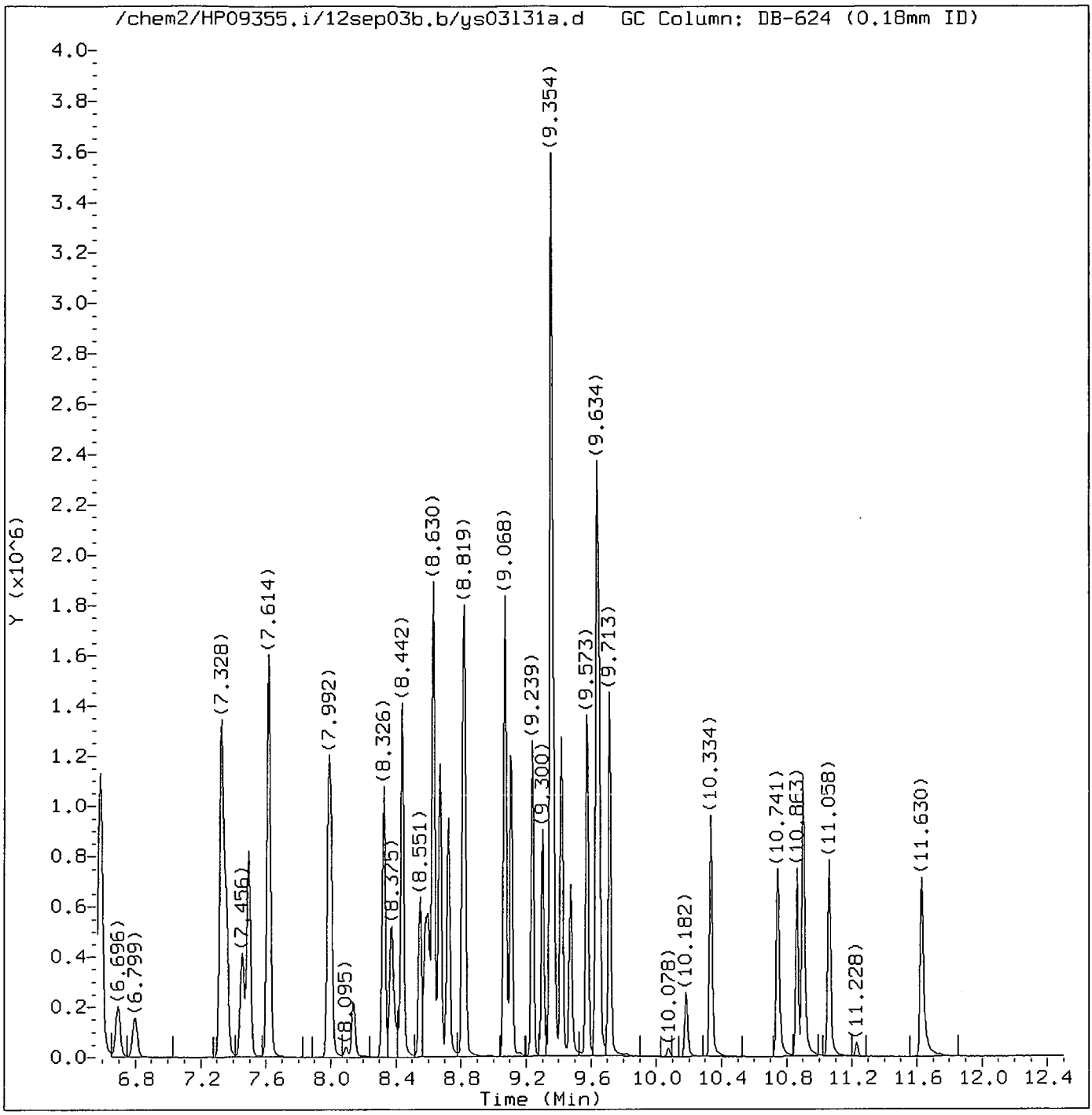
Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03131a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 01:58 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:29 sas00403

Sample Name: LCSY65 Lab Sample ID: LCSY65

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 02:30.
Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03131a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 01:58 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:29 sas00403

Sample Name: LCSY65 Lab Sample ID: LCSY65

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 02:30.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03131a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 01:58 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:29 sas00403

Sample Name: LCSY65 Lab Sample ID: LCSY65

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.014	85	128203	15.286
3) Chloromethane	(1)	1.044	50	133629	15.183
5) Vinyl Chloride	(1)	1.117	62	130651	15.774
7) Bromomethane	(1)	1.269	94	85833	16.914
8) Chloroethane	(1)	1.318	64	69906	16.226
10) Trichlorofluoromethane	(1)	1.482	101	187935	21.296
13) Ethyl Ether	(1)	1.579	59	77381	14.893
15) Acrolein	(4)	1.652	56	225777	103.376
16) 1,1-Dichloroethene	(1)	1.725	96	93857	20.067
17) Acetone	(1)	1.744	58	196941	162.497
18) Freon 113	(1)	1.756	101	97988	19.230
21) 2-Propanol	(4)	1.811	45	109666	137.136
20) Methyl Iodide	(1)	1.823	142	178135	20.021
22) Carbon Disulfide	(1)	1.871	76	267165	18.139
24) Allyl Chloride	(1)	1.938	41	147195	16.620
25) Methyl Acetate	(1)	1.951	43	183656	21.361
26) Methylene Chloride	(1)	2.024	84	109681	19.101
28)*t-Butyl Alcohol-d10	(4)	2.036	65	318863	250.000
29) t-Butyl Alcohol	(4)	2.091	59	284036M	157.996
30) Acrylonitrile	(1)	2.182	53	388469	82.379
31) trans-1,2-Dichloroethene	(1)	2.218	96	106992	19.012
32) Methyl Tertiary Butyl Ether	(1)	2.230	73	386389	18.993
33) n-Hexane	(1)	2.431	57	146182	14.815
34) 1,1-Dichloroethane	(1)	2.547	63	202677	18.286
36) di-Isopropyl Ether	(1)	2.620	45	345633	15.856
37) 2-Chloro-1,3-Butadiene	(1)	2.632	53	170478	17.111
39) Ethyl t-Butyl Ether	(1)	2.942	59	362789	17.585
40) cis-1,2-Dichloroethene	(1)	3.058	96	125054	19.753
41) 2-Butanone	(1)	3.058	43	932805	133.933
42) 2,2-Dichloropropane	(1)	3.070	77	169948	19.618
43) Propionitrile	(4)	3.106	54	268829	138.162
46) Methacrylonitrile	(1)	3.252	67	621227	137.930
47) Bromochloromethane	(1)	3.271	128	64553	19.694
48) Tetrahydrofuran	(4)	3.313	71	167734	93.180
50) Chloroform	(1)	3.350	83	203643	19.099
52)$Dibromofluoromethane	(1)	3.496	113	250158	51.838
53) 1,1,1-Trichloroethane	(1)	3.526	97	194702	19.615
56) Cyclohexane	(1)	3.587	56	181531	16.026

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 02:30.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03131a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 01:58 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:29 sas00403

Sample Name: LCSY65 Lab Sample ID: LCSY65

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
45) 1,2-Dichloroethene (total)	(1)		96	232046	38.765
57) 1,1-Dichloropropene	(1)	3.672	75	155739	18.569
58) Carbon Tetrachloride	(1)	3.684	117	151054	20.672
59) Isobutyl Alcohol	(4)	3.806	41	215246	397.056
62)$1,2-Dichloroethane-d4	(1)	3.806	102	65223	51.690
63) Benzene	(1)	3.867	78	467121	18.984
65) 1,2-Dichloroethane	(1)	3.879	62	178410	19.346
69) t-Amyl Methyl Ether	(1)	4.001	73	343919	17.894
71)*Fluorobenzene	(1)	4.141	96	1043907	50.000
72) n-Heptane	(1)	4.159	43	163624	13.922
73) n-Butanol	(4)	4.469	56	378242	770.117
74) Trichloroethene	(1)	4.500	95	121210	19.364
76) Methylcyclohexane	(1)	4.700	83	202837	18.119
77) 1,2-Dichloropropane	(1)	4.719	63	118596	17.663
78) Dibromomethane	(1)	4.834	93	81219	19.155
79) 1,4-Dioxane	(4)	4.865	88	55038	422.501
80) Methyl Methacrylate	(1)	4.877	69	118093	16.464
83) Bromodichloromethane	(1)	5.011	83	146716	19.565
85) 2-Nitropropane	(1)	5.242	41	51708	15.823
86) 2-Chloroethyl Vinyl Ether	(1)	5.351	63	89598	15.927
87) cis-1,3-Dichloropropene	(1)	5.479	75	195321	19.878
89) 4-Methyl-2-Pentanone	(1)	5.668	43	1063404	81.542
93)$Toluene-d8	(2)	5.765	98	1045559	49.087
94) Toluene	(2)	5.832	92	299058	18.384
95) trans-1,3-Dichloropropene	(2)	6.087	75	180988	18.130
96) Ethyl Methacrylate	(2)	6.233	69	178619	15.284
97) 1,1,2-Trichloroethane	(2)	6.276	97	120690	19.424
98) Tetrachloroethene	(2)	6.422	166	141818	18.982
99) 1,3-Dichloropropane	(2)	6.452	76	204491	18.377
101) 2-Hexanone	(2)	6.586	43	874141	79.367
102) Dibromochloromethane	(2)	6.696	129	121422	19.887
104) 1,2-Dibromoethane	(2)	6.799	107	128351	18.785
106)*Chlorobenzene-d5	(2)	7.328	117	782398	50.000
107) Chlorobenzene	(2)	7.359	112	349118	19.040
108) 1,1,1,2-Tetrachloroethane	(2)	7.456	131	120547	19.894
109) Ethylbenzene	(2)	7.493	91	585818	18.443
110) m+p-Xylene	(2)	7.614	106	465124	37.593
113) o-Xylene	(2)	7.985	106	225274	18.427

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 02:30.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03131a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 01:58 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:29 sas00403

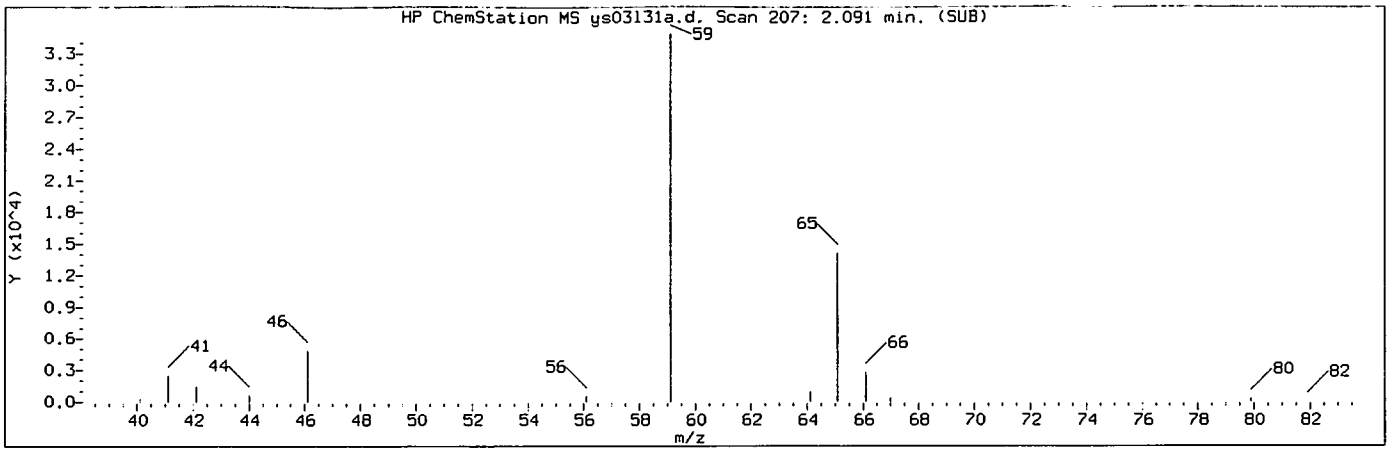
Sample Name: LCSY65 Lab Sample ID: LCSY65

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
114) Styrene	(2)	8.004	104	358674	17.208
115) Bromoform	(2)	8.138	173	93174	18.510
112) Xylene (Total)	(2)		106	690398	56.019
116) Isopropylbenzene	(2)	8.326	105	602704	18.923
118) Cyclohexanone	(4)	8.375	55	249832	392.455
119)$4-Bromofluorobenzene	(2)	8.436	95	389334	48.974
121) Bromobenzene	(3)	8.551	156	160975	18.232
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	206376	18.250
123) 1,2,3-Trichloropropane	(3)	8.600	110	67503	18.485
124) trans-1,4-Dichloro-2-Butene	(3)	8.630	53	334381	85.914
125) n-Propylbenzene	(3)	8.673	91	710160	18.241
126) 2-Chlorotoluene	(3)	8.722	126	151480	18.638
128) 4-Chlorotoluene	(3)	8.813	126	155001	18.227
127) 1,3,5-Trimethylbenzene	(3)	8.819	105	528343	18.353
130) tert-Butylbenzene	(3)	9.068	134	117918	18.090
131) Pentachloroethane	(3)	9.068	167	97376	18.981
132) 1,2,4-Trimethylbenzene	(3)	9.105	105	535117	18.054
133) sec-Butylbenzene	(3)	9.239	105	654011	18.260
134) 1,3-Dichlorobenzene	(3)	9.300	146	304326	18.029
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	480543	50.000
135) p-Isopropyltoluene	(3)	9.354	119	583800	18.155
138) 1,4-Dichlorobenzene	(3)	9.373	146	325949	18.798
139) 1,2,3-Trimethylbenzene	(3)	9.415	105	561303	18.638
141) Benzyl Chloride	(3)	9.476	91	395835	16.916
142) 1,3-Diethylbenzene	(3)	9.573	119	342398	17.840
144) 1,2-Dichlorobenzene	(3)	9.634	146	312499	19.314
143) 1,4-Diethylbenzene	(3)	9.634	119	362833	18.238
145) n-Butylbenzene	(3)	9.652	92	275223M	17.505
146) 1,2-Diethylbenzene	(3)	9.713	119	300287	18.612
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	52338	16.720
149) 1,3,5-Trichlorobenzene	(3)	10.334	180	254348	18.980
150) 1,2,4-Trichlorobenzene	(3)	10.747	180	233205	18.503
151) Hexachlorobutadiene	(3)	10.863	225	110681	17.610
152) Naphthalene	(3)	10.900	128	745767	18.313
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	226888	18.257
154) 2-Methylnaphthalene	(3)	11.630	142	371842	14.917

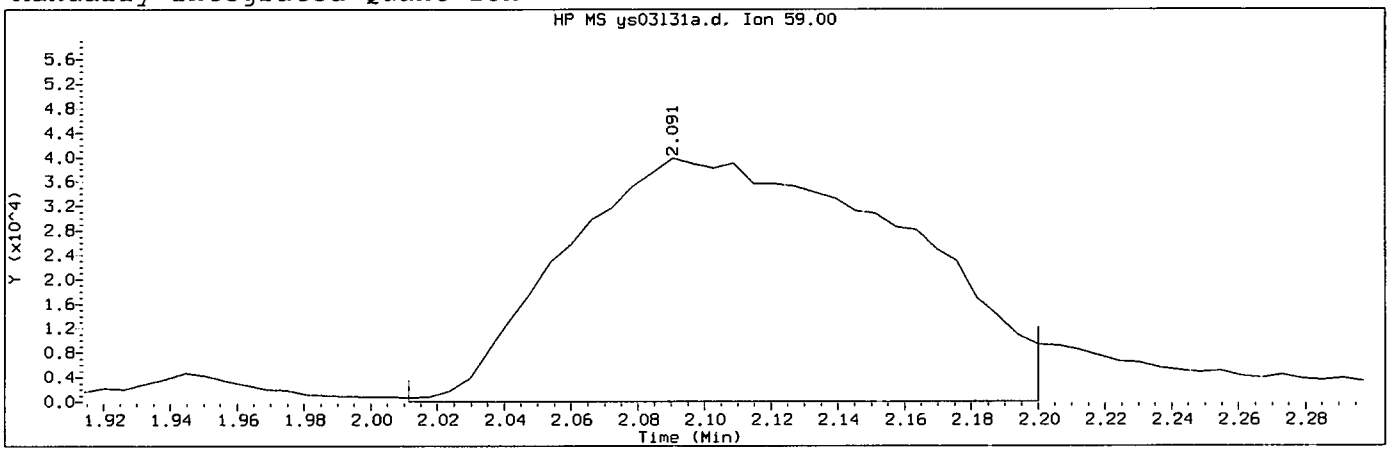
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 02:30.
Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03131a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 01:58 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:29 sas00403

Sample Name: LCSY65 Lab Sample ID: LCSY65

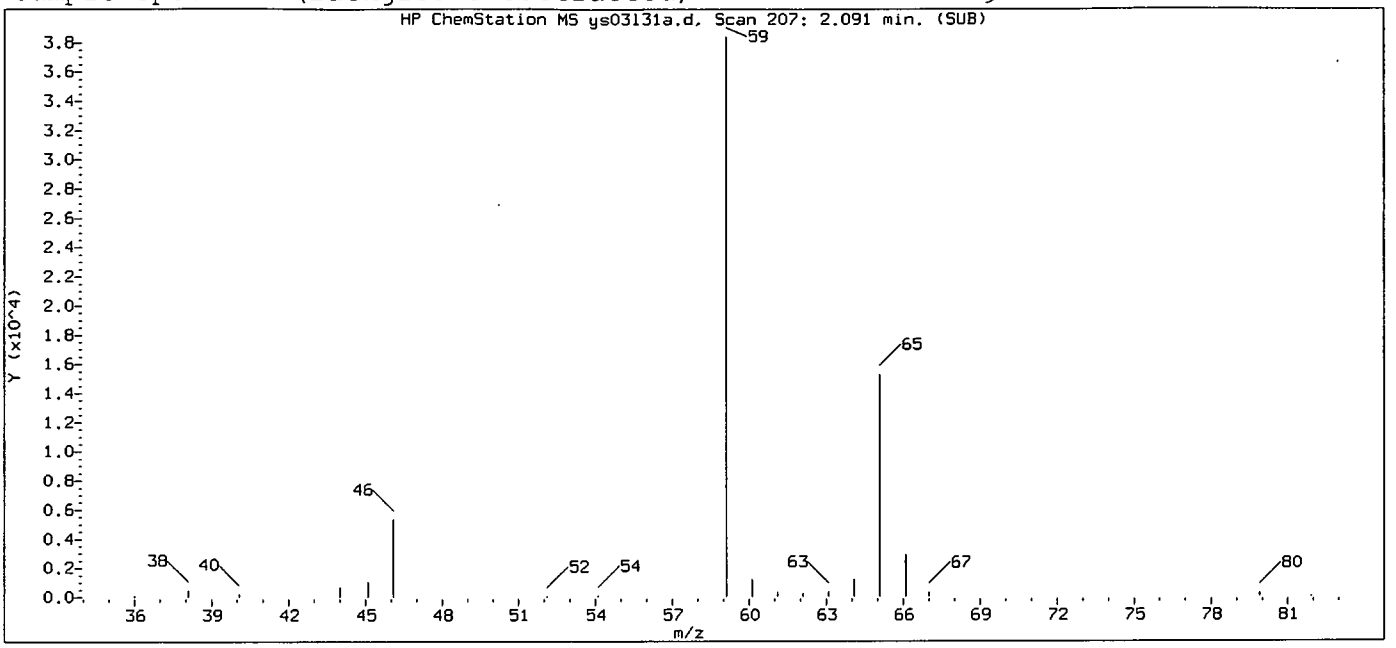
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 207		
Retention Time (minutes)	: 2.091		
Quant Ion	: 59.00		
Area (flag)	: 284036M		
On-Column Amount (ng)	: 157.9959		
Integration start scan	: 193	Integration stop scan:	224
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

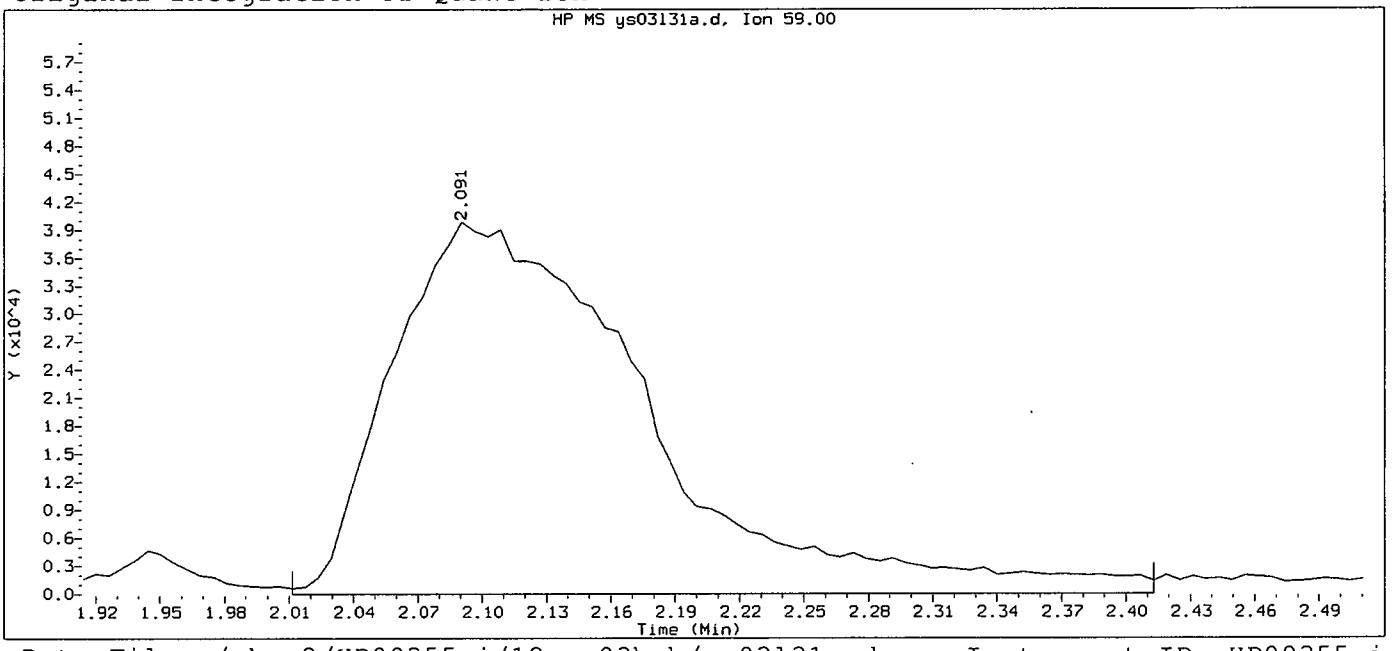
Analyst responsible for change: Digitally signed by Stephanie A. Selis on 09/04/2012 at 02:30. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05.
Parallax ID: cmr00412

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03131a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 01:58 Analyst ID: SAS00403

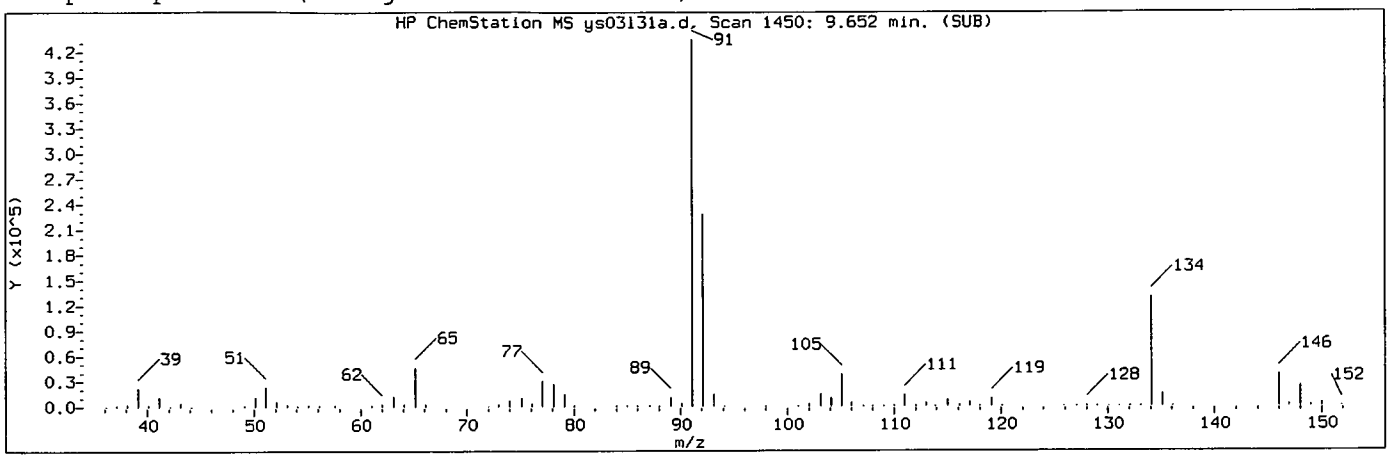
Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:14 Automation

Sample Name: LCSY65 Lab Sample ID: LCSY65

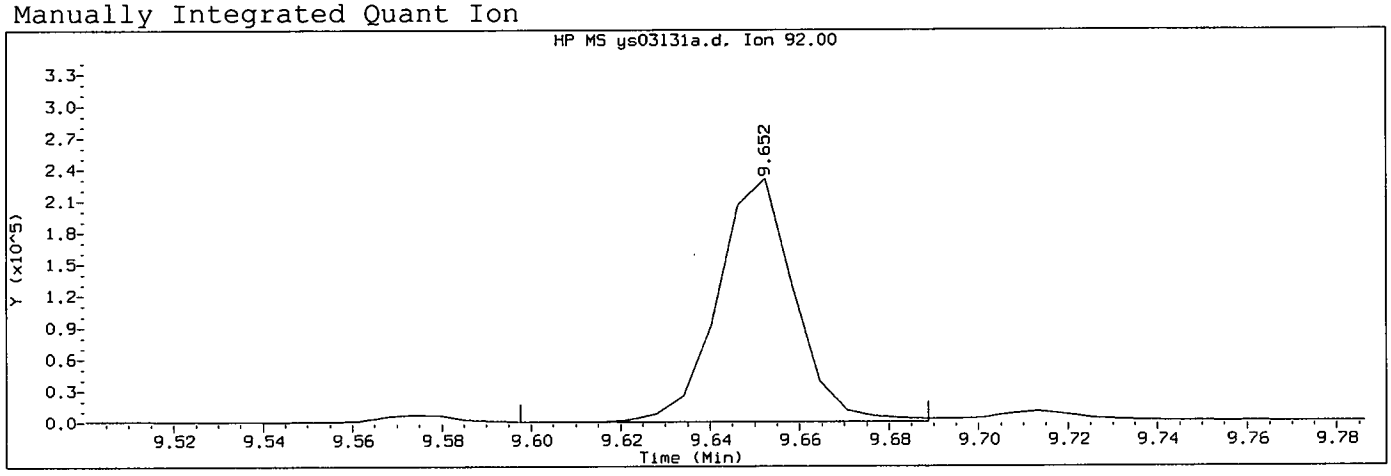
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 207		
Retention Time (minutes)	: 2.091		
Quant Ion	: 59.00		
Area	: 330455		
On-column Amount (ng)	: 183.8164		
Integration start scan	: 193	Integration stop scan:	259
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephanie A. Selis on 09/04/2012 at 02:30.
Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03131a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 01:58 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:29 sas00403

Sample Name: LCSY65 Lab Sample ID: LCSY65

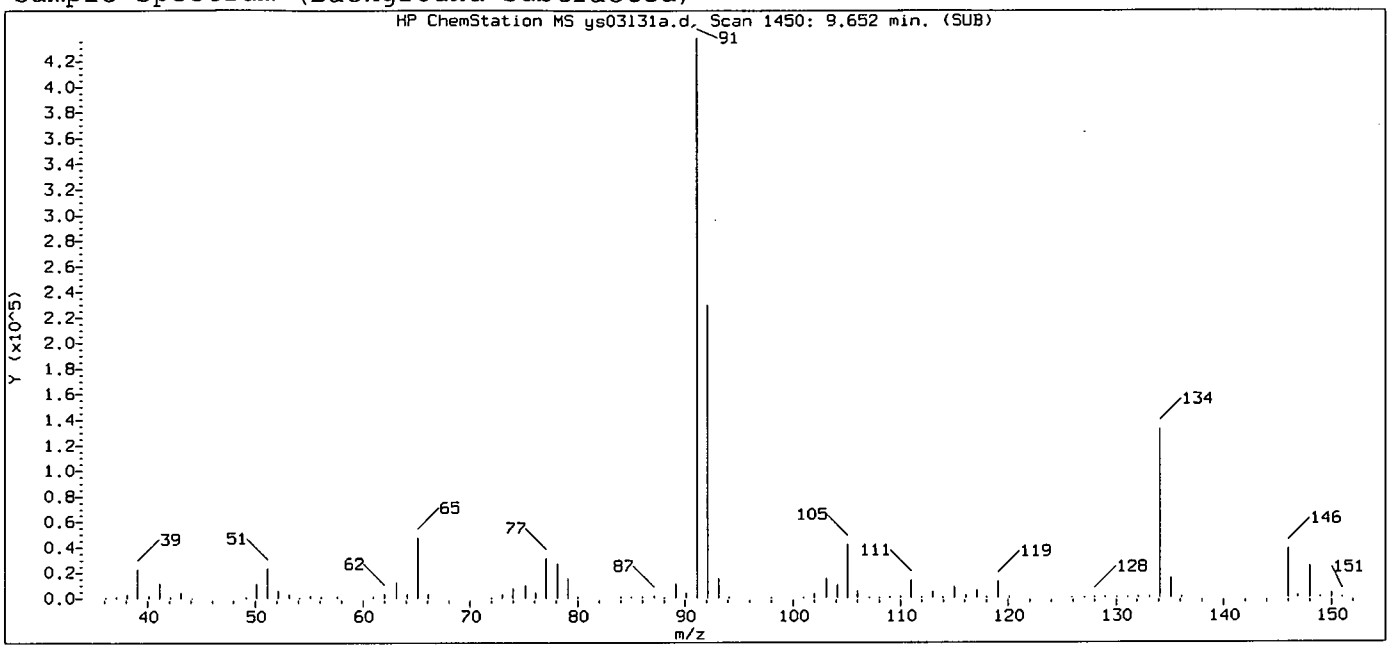
Compound Number	: 145		
Compound Name	: n-Butylbenzene		
Scan Number	: 1450		
Retention Time (minutes)	: 9.652		
Quant Ion	: 92.00		
Area (flag)	: 275223M		
On-Column Amount (ng)	: 17.5052		
Integration start scan	: 1440	Integration stop scan:	1455
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

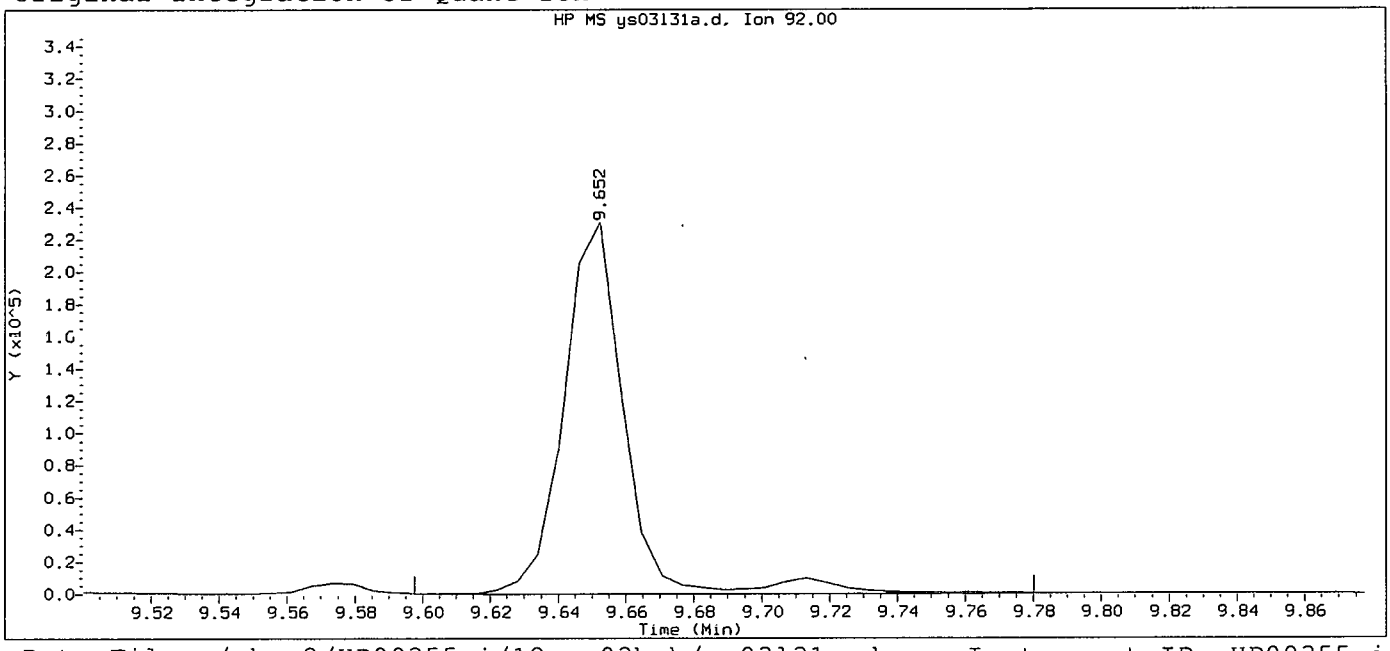
Analyst responsible for change: Digitally signed by Stephanie A. Selis on 09/04/2012 at 02:30. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05.
Parallax ID: cmr00412

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03131a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 01:58 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 00:52
Date, time and analyst ID of latest file update: 04-Sep-2012 02:14 Automation

Sample Name: LCSY65 Lab Sample ID: LCSY65

Compound Number : 145
Compound Name : n-Butylbenzene
Scan Number : 1450
Retention Time (minutes): 9.652
Quant Ion : 92.00
Area : 291285
On-column Amount (ng) : 18.5268
Integration start scan : 1440 Integration stop scan: 1470
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephanie A. Selis on 09/04/2012 at 02:30.
Target 3.5 esignature user ID: sas00403

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDY65

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCDY65

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03l32a.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	15	
74-87-3	Chloromethane	15	
75-01-4	Vinyl Chloride	15	
74-83-9	Bromomethane	17	
75-00-3	Chloroethane	16	
75-69-4	Trichlorofluoromethane	21	
60-29-7	Ethyl Ether	14	
107-02-8	Acrolein	110	
75-35-4	1,1-Dichloroethene	19	
67-64-1	Acetone	200	
76-13-1	Freon 113	19	
74-88-4	Methyl Iodide	20	
67-63-0	2-Propanol	130	
75-15-0	Carbon Disulfide	18	
107-05-1	Allyl Chloride	16	
79-20-9	Methyl Acetate	29	
75-09-2	Methylene Chloride	19	
75-65-0	t-Butyl Alcohol	150	
107-13-1	Acrylonitrile	82	
156-60-5	trans-1,2-Dichloroethene	19	
1634-04-4	Methyl Tertiary Butyl Ether	19	
110-54-3	n-Hexane	15	
75-34-3	1,1-Dichloroethane	18	
108-20-3	di-Isopropyl Ether	16	
126-99-8	2-Chloro-1,3-Butadiene	17	
637-92-3	Ethyl t-Butyl Ether	17	
156-59-2	cis-1,2-Dichloroethene	20	
78-93-3	2-Butanone	150	
594-20-7	2,2-Dichloropropane	19	
107-12-0	Propionitrile	140	

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDY65

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCDY65

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03l32a.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (total)	39	
126-98-7	Methacrylonitrile	130	
74-97-5	Bromochloromethane	19	
109-99-9	Tetrahydrofuran	100	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	19	
110-82-7	Cyclohexane	16	
563-58-6	1,1-Dichloropropene	18	
56-23-5	Carbon Tetrachloride	20	
78-83-1	Isobutyl Alcohol	400	
71-43-2	Benzene	19	
107-06-2	1,2-Dichloroethane	19	
994-05-8	t Amyl Methyl Ether	18	
142-82-5	n-Heptane	14	
71-36-3	n-Butanol	810	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	18	
78-87-5	1,2-Dichloropropane	17	
74-95-3	Dibromomethane	19	
123-91-1	1,4-Dioxane	450	
80-62-6	Methyl Methacrylate	16	
75-27-4	Bromodichloromethane	19	
79-46-9	2-Nitropropane	16	
110-75-8	2-Chloroethyl Vinyl Ether	15	
10061-01-5	cis-1,3-Dichloropropene	20	
108-10-1	4-Methyl-2-Pentanone	81	
108-88-3	Toluene	18	
10061-02-6	trans-1,3-Dichloropropene	18	
97-63-2	Ethyl Methacrylate	15	
79-00-5	1,1,2-Trichloroethane	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDY65

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCDY65

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03l32a.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
127-18-4	Tetrachloroethene	19	
142-28-9	1,3-Dichloropropane	18	
591-78-6	2-Hexanone	81	
124-48-1	Dibromochloromethane	20	
106-93-4	1,2-Dibromoethane	19	
108-90-7	Chlorobenzene	19	
630-20-6	1,1,1,2-Tetrachloroethane	20	
100-41-4	Ethylbenzene	18	
179601-23-1	m+p-Xylene	37	
1330-20-7	Xylene (Total)	55	
95-47-6	o-Xylene	19	
100-42-5	Styrene	17	
75-25-2	Bromoform	18	
98-82-8	Isopropylbenzene	19	
108-94-1	Cyclohexanone	470	
108-86-1	Bromobenzene	18	
79-34-5	1,1,2,2-Tetrachloroethane	18	
96-18-4	1,2,3-Trichloropropane	19	
110-57-6	trans-1,4-Dichloro-2-Butene	82	
103-65-1	n-Propylbenzene	18	
95-49-8	2-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	18	
106-43-4	4-Chlorotoluene	18	
98-06-6	tert-Butylbenzene	18	
76-01-7	Pentachloroethane	19	
95-63-6	1,2,4-Trimethylbenzene	18	
135-98-8	sec-Butylbenzene	18	
541-73-1	1,3-Dichlorobenzene	18	
99-87-6	p-Isopropyltoluene	18	
106-46-7	1,4-Dichlorobenzene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDY65

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCDY65

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/12sep03b.b/ys03132a.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/04/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
526-73-8	1,2,3-Trimethylbenzene	19	
100-44-7	Benzyl Chloride	17	
141-93-5	1,3-Diethylbenzene	18	
105-05-5	1,4-Diethylbenzene	18	
95-50-1	1,2-Dichlorobenzene	19	
104-51-8	n-Butylbenzene	18	
135-01-3	1,2-Diethylbenzene	19	
96-12-8	1,2-Dibromo-3-Chloropropane	17	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	18	
87-68-3	Hexachlorobutadiene	18	
91-20-3	Naphthalene	18	
87-61-6	1,2,3-Trichlorobenzene	18	
91-57-6	2-Methylnaphthalene	15	
25340-17-4	Diethylbenzene (total)	55	

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/12sep03b.b/ys03132a.d Injection date and time: **04-SEP-2012 02:19**
Data file Sample Info. Line: LCDY65;LCDY65;1;3;LCSD;;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 02:36 sas00403

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8260WPLM**
Calibration date and time (Last Method Edit): 04-SEP-2012 02:27
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
28) t-Butyl Alcohol-d10	2.048	(0.000)	200	65	299172	(13)	250.00	
71) Fluorobenzene	4.147	(0.006)	545	96	1074643	(20)	50.00	
106) Chlorobenzene-d5	7.329	(0.006)	1068	117	799537	(16)	50.00	
136) 1,4-Dichlorobenzene-d4	9.354	(0.000)	1401	152	479927	(9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(1)	3.502	(0.000)	113	255664	51.464	103%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	3.812	(0.000)	102	66809	51.433	103%		77 - 113
93) Toluene-d8	(2)	5.765	(0.000)	98	1062343	48.805	98%		80 - 113
119) 4-Bromofluorobenzene	(2)	8.442	(-0.001)	95	398331	49.031	98%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
2) Dichlorodifluoromethane	(1)	1.020	(-0.000)	85	130444	15.109	15.11			1	5
3) Chloromethane	(1)	1.050	(0.002)	50	136279	15.041	15.04			1	5
5) Vinyl Chloride	(1)	1.123	(0.001)	62	129128	15.144	15.14			1	5
7) Bromomethane	(1)	1.275	(0.002)	94	86560	16.569	16.57			1	5
8) Chloroethane	(1)	1.324	(0.000)	64	69325	15.631	15.63			1	5
10) Trichlorofluoromethane	(1)	1.488	(0.002)	101	186997	20.584	20.58			1	5
13) Ethyl Ether	(1)	1.586	(0.000)	59	77259	14.444	14.44			2	5
15) Acrolein	(4)	1.665	(-0.000)	56	221582	108.132	108.13			40	100
16) 1,1-Dichloroethene	(1)	1.732	(0.000)	96	93389	19.396	19.40			0.8	5
18) Freon 113	(1)	1.756	(0.000)	101	98256	18.731	18.73			2	10
17) Acetone	(1)	1.750	(-0.000)	58	245464	196.741	196.74			6	20
20) Methyl Iodide	(1)	1.829	(0.000)	142	182380	19.912	19.91			1	5
21) 2-Propanol	(4)	1.823	(0.002)	45	94883	126.460	126.46			50	100
22) Carbon Disulfide	(1)	1.878	(0.000)	76	269369	17.766	17.77			1	5
24) Allyl Chloride	(1)	1.944	(0.000)	41	147082	16.132	16.13			1	5
25) Methyl Acetate	(1)	1.951	(0.000)	43	253308	28.619	28.62			1	5
26) Methylene Chloride	(1)	2.030	(0.000)	84	112121	18.967	18.97			2	5
29) t-Butyl Alcohol	(4)	2.109	(-0.002)	59	254333M	150.786	150.79			10	80
30) Acrylonitrile	(1)	2.194	(-0.000)	53	399002	82.193	82.19			4	20
31) trans-1,2-Dichloroethene	(1)	2.224	(0.000)	96	110888	19.141	19.14			0.8	5
32) Methyl Tertiary Butyl Ether	(1)	2.237	(0.000)	73	392852	18.758	18.76			0.5	5
33) n-Hexane	(1)	2.443	(0.000)	57	148389	14.609	14.61			2	5
45) 1,2-Dichloroethene (total)	(1)			96	239035	38.804	38.80			0.8	5
34) 1,1-Dichloroethane	(1)	2.553	(0.000)	63	205089	17.974	17.97			1	5
36) di-Isopropyl Ether	(1)	2.632	(0.000)	45	356823	15.901	15.90			0.8	5
37) 2-Chloro-1,3-Butadiene	(1)	2.638	(0.000)	53	176436	17.202	17.20			1	5
39) Ethyl t-Butyl Ether	(1)	2.954	(0.000)	59	368984	17.374	17.37			0.8	5
40) cis-1,2-Dichloroethene	(1)	3.064	(0.000)	96	128147	19.663	19.66			0.8	5
41) 2-Butanone	(1)	3.058	(0.003)	43	1048575	146.249	146.25			3	10
42) 2,2-Dichloropropane	(1)	3.076	(0.000)	77	172190	19.308	19.31			1	5
43) Propionitrile	(4)	3.119	(0.002)	54	256746	140.637	140.64			30	100

M = Compound was manually integrated.

Digitally signed by Stephanie A. Selis on 09/04/2012 at 05:45. Target 3.5 esignature user ID: sas00403

Data file: /chem2/HP09355.i/12sep03b.b/ys03132a.d Injection date and time: **04-SEP-2012 02:19**
Data file Sample Info. Line: LCDY65;LCDY65;1;3;LCSD;;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 02:36 sas00403

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8260WPLM**
Calibration date and time (Last Method Edit): 04-SEP-2012 02:27
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
46) Methacrylonitrile	(1)	3.259(0.000)	67	623128	134.395	134.39			10	50
47) Bromochloromethane	(1)	3.277(0.000)	128	65406	19.383	19.38			1	5
48) Tetrahydrofuran	(4)	3.319(0.002)	71	169780	100.525	100.52			4	10
50) Chloroform	(1)	3.356(0.000)	83	204260	18.609	18.61			0.8	5
53) 1,1,1-Trichloroethane	(1)	3.532(0.000)	97	194736	19.058	19.06			0.8	5
56) Cyclohexane	(1)	3.587(0.001)	56	183468	15.733	15.73			2	5
57) 1,1-Dichloropropene	(1)	3.684(-0.001)	75	156244	18.097	18.10			1	5
58) Carbon Tetrachloride	(1)	3.690(0.000)	117	153155	20.360	20.36			1	5
59) Isobutyl Alcohol	(4)	3.812(0.005)	41	203361	399.823	399.82			100	250
63) Benzene	(1)	3.873(0.000)	78	472404	18.649	18.65			0.5	5
65) 1,2-Dichloroethane	(1)	3.885(0.000)	62	175946	18.533	18.53			1	5
69) t-Amyl Methyl Ether	(1)	4.007(0.000)	73	348535	17.615	17.62			0.8	5
72) n-Heptane	(1)	4.165(-0.000)	43	164772	13.619	13.62			2	5
73) n-Butanol	(4)	4.475(0.003)	56	371063	805.226	805.23			100	250
74) Trichloroethene	(1)	4.512(-0.000)	95	122264	18.974	18.97			1	5
77) 1,2-Dichloropropane	(1)	4.719(0.001)	63	119793	17.331	17.33			1	5
76) Methylcyclohexane	(1)	4.706(-0.000)	83	205165	17.803	17.80			1	5
80) Methyl Methacrylate	(1)	4.883(-0.001)	69	119803	16.225	16.22			1	5
78) Dibromomethane	(1)	4.840(-0.000)	93	81746	18.728	18.73			1	5
79) 1,4-Dioxane	(4)	4.865(0.005)	88	54637	447.029	447.03			70	250
83) Bromodichloromethane	(1)	5.017(-0.000)	83	146632	18.994	18.99			1	5
85) 2-Nitropropane	(1)	5.242(-0.000)	41	54240	16.124	16.12			2	10
86) 2-Chloroethyl Vinyl Ether	(1)	5.351(-0.000)	63	88965	15.362	15.36			2	10
87) cis-1,3-Dichloropropene	(1)	5.485(-0.000)	75	198484	19.622	19.62			1	5
89) 4-Methyl-2-Pentanone	(1)	5.674(-0.000)	43	1083655	80.719	80.72			3	10
94) Toluene	(2)	5.838(0.000)	92	300383	18.070	18.07			0.7	5
95) trans-1,3-Dichloropropene	(2)	6.094(-0.000)	75	181654	17.807	17.81			1	5
96) Ethyl Methacrylate	(2)	6.240(-0.000)	69	184171	15.421	15.42			1	5
97) 1,1,2-Trichloroethane	(2)	6.276(0.000)	97	119933	18.888	18.89			0.8	5
98) Tetrachloroethene	(2)	6.428(0.000)	166	144367	18.909	18.91			0.8	5
99) 1,3-Dichloropropane	(2)	6.452(0.000)	76	204896	18.018	18.02			1	5
101) 2-Hexanone	(2)	6.586(0.000)	43	916520	81.431	81.43			3	10
102) Dibromochloromethane	(2)	6.696(0.000)	129	122266	19.596	19.60			1	5
104) 1,2-Dibromoethane	(2)	6.799(0.000)	107	129915	18.606	18.61			1	5
107) Chlorobenzene	(2)	7.359(-0.000)	112	355251	18.959	18.96			0.8	5
108) 1,1,1,2-Tetrachloroethane	(2)	7.456(-0.000)	131	121818	19.673	19.67			1	5
109) Ethylbenzene	(2)	7.499(-0.000)	91	589266	18.153	18.15			0.8	5
110) m+p-Xylene	(2)	7.620(-0.000)	106	466155	36.868	36.87			0.8	5
112) Xylene (Total)	(2)		106	697635	55.397	55.40			0.8	5
113) o-Xylene	(2)	7.986(-0.000)	106	231480	18.528	18.53			0.8	5
114) Styrene	(2)	8.004(-0.000)	104	363593	17.070	17.07			1	5
115) Bromoform	(2)	8.144(-0.000)	173	92096	17.903	17.90			1	5
116) Isopropylbenzene	(2)	8.326(-0.000)	105	607277	18.658	18.66			1	5
118) Cyclohexanone	(4)	8.369(0.003)	55	283606	474.832	474.83			55	250
122) 1,1,2,2-Tetrachloroethane	(3)	8.582(-0.000)	83	207281	18.354	18.35			1	5
124) trans-1,4-Dichloro-2-Butene	(3)	8.630(0.000)	53	316964	81.544	81.54			15	50
121) Bromobenzene	(3)	8.551(-0.000)	156	162757	18.457	18.46			1	5
123) 1,2,3-Trichloropropane	(3)	8.600(0.000)	110	68506	18.784	18.78			1	5
125) n-Propylbenzene	(3)	8.673(0.000)	91	710797	18.281	18.28			1	5
126) 2-Chlorotoluene	(3)	8.722(0.000)	126	152572	18.797	18.80			1	5
127) 1,3,5-Trimethylbenzene	(3)	8.825(-0.000)	105	526651	18.317	18.32			1	5
128) 4-Chlorotoluene	(3)	8.813(-0.000)	126	156488	18.425	18.43			1	5
130) tert-Butylbenzene	(3)	9.068(0.000)	134	119111	18.297	18.30			1	5
131) Pentachloroethane	(3)	9.074(0.000)	167	96465	18.827	18.83			1	5

Digitally signed by Stephanie A. Selis on 09/04/2012 at 05:45. Target 3.5 esignature user ID: sas00403

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/12sep03b.b/ys03132a.d Injection date and time: **04-SEP-2012 02:19**
Data file Sample Info. Line: LCDY65;LCDY65;1;3;LCSD;;PLM;;ys03b05; Instrument ID: **HP09355.i** Batch: **Y122472AA**
Date, time and analyst ID of latest file update: 04-Sep-2012 02:36 sas00403

Blank Data file reference: **/chem2/HP09355.i/12sep03b.b/ys03b05.d**

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: **8260WPLM**
Calibration date and time (Last Method Edit): 04-SEP-2012 02:27
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/12sep03b.b/ys03c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

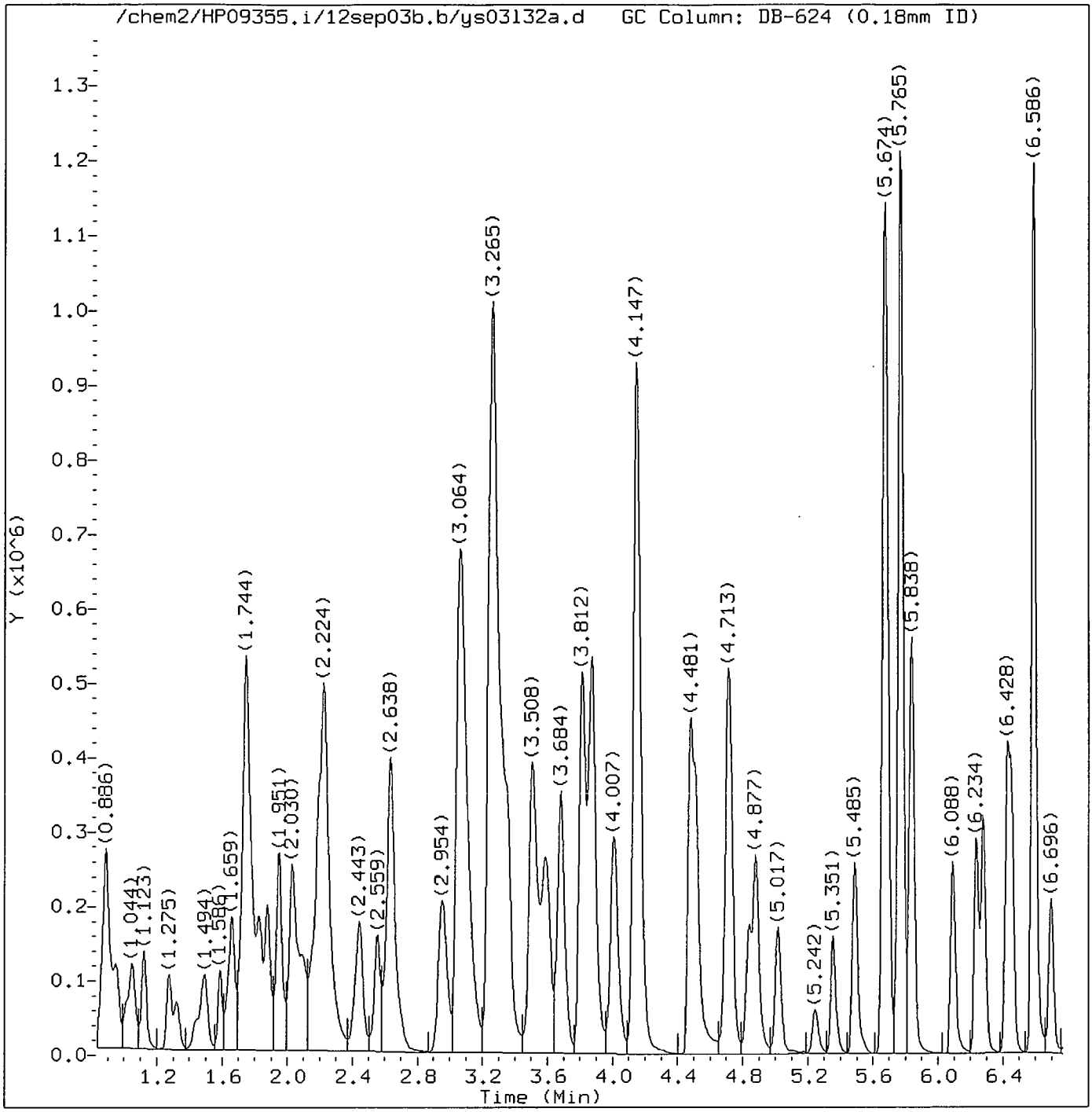
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
132) 1,2,4-Trimethylbenzene	(3)	9.111(0.000)	105	539023	18.209	18.21			1	5
133) sec-Butylbenzene	(3)	9.239(0.000)	105	649920	18.169	18.17			1	5
135) p-Isopropyltoluene	(3)	9.354(0.000)	119	578280	18.007	18.01			1	5
134) 1,3-Dichlorobenzene	(3)	9.306(-0.000)	146	303391	17.997	18.00			1	5
138) 1,4-Dichlorobenzene	(3)	9.373(0.000)	146	329909	19.051	19.05			1	5
139) 1,2,3-Trimethylbenzene	(3)	9.421(0.000)	105	558940	18.583	18.58			1	5
141) Benzyl Chloride	(3)	9.476(0.000)	91	396260	16.956	16.96			1	5
142) 1,3-Diethylbenzene	(3)	9.573(0.000)	119	343079	17.898	17.90			1	5
143) 1,4-Diethylbenzene	(3)	9.634(0.000)	119	359851	18.112	18.11			1	5
145) n-Butylbenzene	(3)	9.652(0.000)	92	275763M	17.562	17.56			1	5
144) 1,2-Dichlorobenzene	(3)	9.634(0.000)	146	310223	19.198	19.20			1	5
146) 1,2-Diethylbenzene	(3)	9.713(0.000)	119	303064	18.808	18.81			1	5
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182(0.000)	75	54026	17.282	17.28			2	5
149) 1,3,5-Trichlorobenzene	(3)	10.334(0.000)	180	250175	18.693	18.69			1	5
150) 1,2,4-Trichlorobenzene	(3)	10.748(0.000)	180	231844	18.418	18.42			1	5
151) Hexachlorobutadiene	(3)	10.863(0.000)	225	110298	17.571	17.57			2	5
152) Naphthalene	(3)	10.900(0.000)	128	735531	18.084	18.08			1	5
153) 1,2,3-Trichlorobenzene	(3)	11.058(0.000)	180	222048	17.891	17.89			1	5
154) 2-Methylnaphthalene	(3)	11.630(0.000)	142	377632	15.168	15.17			2	5

M = Compound was manually integrated.

Total number of targets = 104

Digitally signed by Stephanie A. Selis on 09/04/2012 at 05:45. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05. Parallax ID: cmr00412



Total Ion Chromatogram (TIC)

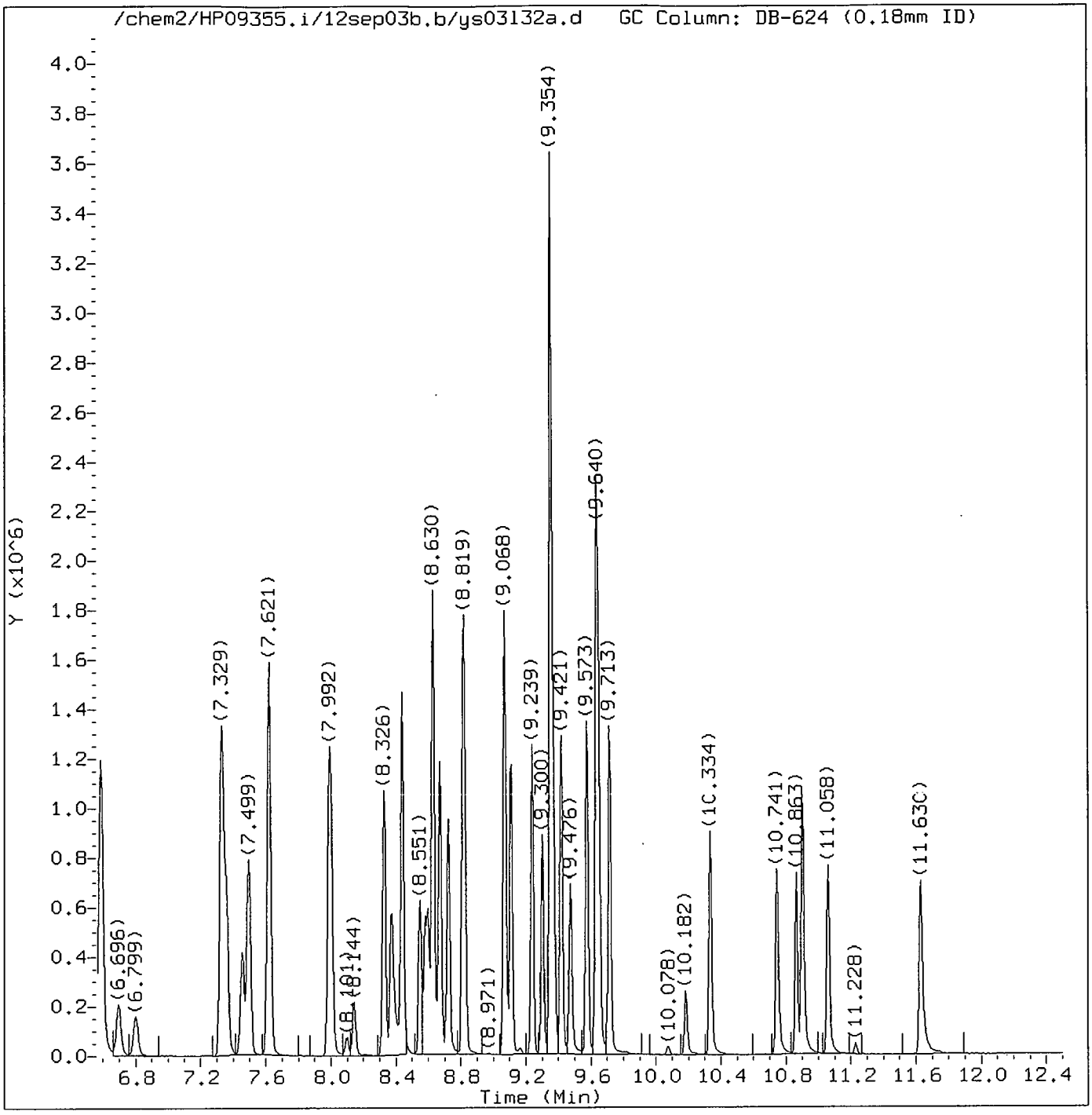
Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03132a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 02:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 02:27
Date, time and analyst ID of latest file update: 04-Sep-2012 02:36 sas00403

Sample Name: LCDY65 Lab Sample ID: LCDY65

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 05:45.
Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03132a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 02:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 02:27
Date, time and analyst ID of latest file update: 04-Sep-2012 02:36 sas00403

Sample Name: LCDY65 Lab Sample ID: LCDY65

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 05:45.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03132a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 02:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 02:27
Date, time and analyst ID of latest file update: 04-Sep-2012 02:36 sas00403

Sample Name: LCDY65 Lab Sample ID: LCDY65

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(1)	1.020	85	130444	15.109
3) Chloromethane	(1)	1.050	50	136279	15.041
5) Vinyl Chloride	(1)	1.123	62	129128	15.144
7) Bromomethane	(1)	1.275	94	86560	16.569
8) Chloroethane	(1)	1.324	64	69325	15.631
10) Trichlorofluoromethane	(1)	1.488	101	186997	20.584
13) Ethyl Ether	(1)	1.586	59	77259	14.444
15) Acrolein	(4)	1.665	56	221582	108.132
16) 1,1-Dichloroethene	(1)	1.732	96	93389	19.396
17) Acetone	(1)	1.750	58	245464	196.741
18) Freon 113	(1)	1.756	101	98256	18.731
21) 2-Propanol	(4)	1.823	45	94883	126.460
20) Methyl Iodide	(1)	1.829	142	182380	19.912
22) Carbon Disulfide	(1)	1.878	76	269369	17.766
24) Allyl Chloride	(1)	1.945	41	147082	16.132
25) Methyl Acetate	(1)	1.951	43	253308	28.619
26) Methylene Chloride	(1)	2.030	84	112121	18.967
28)*t-Butyl Alcohol-d10	(4)	2.048	65	299172	250.000
29) t-Butyl Alcohol	(4)	2.109	59	254333M	150.786
30) Acrylonitrile	(1)	2.194	53	399002	82.193
31) trans-1,2-Dichloroethene	(1)	2.224	96	110888	19.141
32) Methyl Tertiary Butyl Ether	(1)	2.237	73	392852	18.758
33) n-Hexane	(1)	2.443	57	148389	14.609
34) 1,1-Dichloroethane	(1)	2.553	63	205089	17.974
36) di-Isopropyl Ether	(1)	2.632	45	356823	15.901
37) 2-Chloro-1,3-Butadiene	(1)	2.638	53	176436	17.202
39) Ethyl t-Butyl Ether	(1)	2.954	59	368984	17.374
41) 2-Butanone	(1)	3.058	43	1048575	146.249
40) cis-1,2-Dichloroethene	(1)	3.064	96	128147	19.663
42) 2,2-Dichloropropane	(1)	3.076	77	172190	19.308
43) Propionitrile	(4)	3.119	54	256746	140.637
46) Methacrylonitrile	(1)	3.259	67	623128	134.395
47) Bromochloromethane	(1)	3.277	128	65406	19.383
48) Tetrahydrofuran	(4)	3.319	71	169780	100.525
50) Chloroform	(1)	3.356	83	204260	18.609
52)$Dibromofluoromethane	(1)	3.502	113	255664	51.464
53) 1,1,1-Trichloroethane	(1)	3.532	97	194736	19.058
56) Cyclohexane	(1)	3.587	56	183468	15.733

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 09/04/2012 at 05:45.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03132a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 02:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 02:27
Date, time and analyst ID of latest file update: 04-Sep-2012 02:36 sas00403

Sample Name: LCDY65 Lab Sample ID: LCDY65

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
45) 1,2-Dichloroethene (total)	(1)		96	239035	38.804
57) 1,1-Dichloropropene	(1)	3.684	75	156244	18.097
58) Carbon Tetrachloride	(1)	3.691	117	153155	20.360
59) Isobutyl Alcohol	(4)	3.812	41	203361	399.823
62)$1,2-Dichloroethane-d4	(1)	3.812	102	66809	51.433
63) Benzene	(1)	3.873	78	472404	18.649
65) 1,2-Dichloroethane	(1)	3.885	62	175946	18.533
69) t-Amyl Methyl Ether	(1)	4.007	73	348535	17.615
71)*Fluorobenzene	(1)	4.147	96	1074643	50.000
72) n-Heptane	(1)	4.165	43	164772	13.619
73) n-Butanol	(4)	4.475	56	371063	805.226
74) Trichloroethene	(1)	4.512	95	122264	18.974
76) Methylcyclohexane	(1)	4.707	83	205165	17.803
77) 1,2-Dichloropropane	(1)	4.719	63	119793	17.331
78) Dibromomethane	(1)	4.840	93	81746	18.728
79) 1,4-Dioxane	(4)	4.865	88	54637	447.029
80) Methyl Methacrylate	(1)	4.883	69	119803	16.225
83) Bromodichloromethane	(1)	5.017	83	146632	18.994
85) 2-Nitropropane	(1)	5.242	41	54240	16.124
86) 2-Chloroethyl Vinyl Ether	(1)	5.351	63	88965	15.362
87) cis-1,3-Dichloropropene	(1)	5.485	75	198484	19.622
89) 4-Methyl-2-Pentanone	(1)	5.674	43	1083655	80.719
93)$Toluene-d8	(2)	5.765	98	1062343	48.805
94) Toluene	(2)	5.838	92	300383	18.070
95) trans-1,3-Dichloropropene	(2)	6.094	75	181654	17.807
96) Ethyl Methacrylate	(2)	6.240	69	184171	15.421
97) 1,1,2-Trichloroethane	(2)	6.276	97	119933	18.888
98) Tetrachloroethene	(2)	6.428	166	144367	18.909
99) 1,3-Dichloropropane	(2)	6.453	76	204896	18.018
101) 2-Hexanone	(2)	6.586	43	916520	81.431
102) Dibromochloromethane	(2)	6.696	129	122266	19.596
104) 1,2-Dibromoethane	(2)	6.799	107	129915	18.606
106)*Chlorobenzene-d5	(2)	7.329	117	799537	50.000
107) Chlorobenzene	(2)	7.359	112	355251	18.959
108) 1,1,1,2-Tetrachloroethane	(2)	7.456	131	121818	19.673
109) Ethylbenzene	(2)	7.499	91	589266	18.153
110) m+p-Xylene	(2)	7.621	106	466155	36.868
113) o-Xylene	(2)	7.986	106	231480	18.528

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 05:45.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/12sep03b.b/ys03132a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 02:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 02:27
Date, time and analyst ID of latest file update: 04-Sep-2012 02:36 sas00403

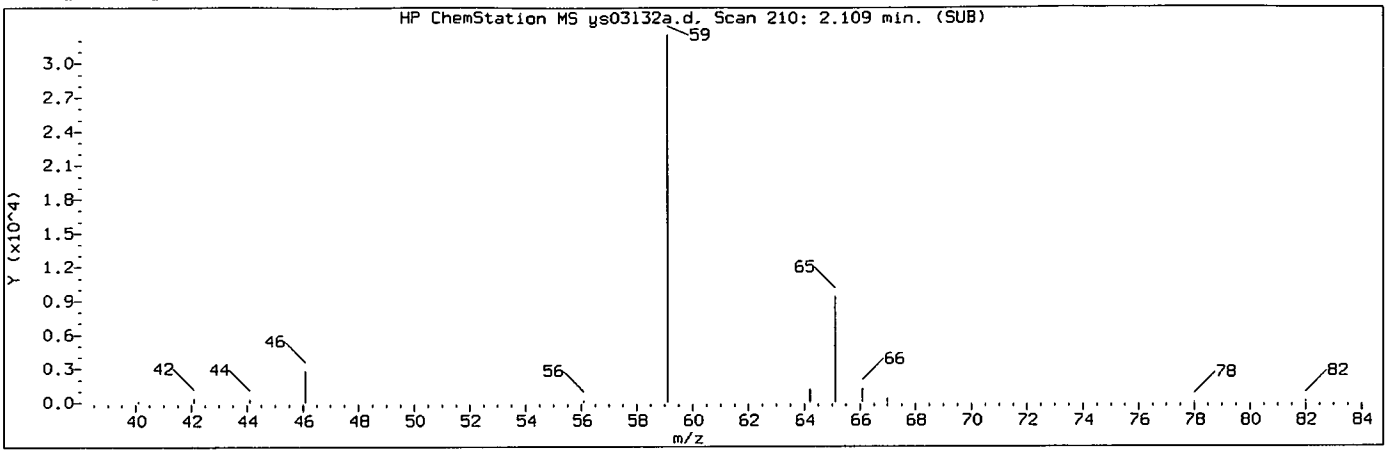
Sample Name: LCDY65 Lab Sample ID: LCDY65

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
114) Styrene	(2)	8.004	104	363593	17.070
115) Bromoform	(2)	8.144	173	92096	17.903
112) Xylene (Total)	(2)		106	697635	55.397
116) Isopropylbenzene	(2)	8.326	105	607277	18.658
118) Cyclohexanone	(4)	8.369	55	283606	474.832
119)$4-Bromofluorobenzene	(2)	8.442	95	398331	49.031
121) Bromobenzene	(3)	8.551	156	162757	18.457
122) 1,1,2,2-Tetrachloroethane	(3)	8.582	83	207281	18.354
123) 1,2,3-Trichloropropane	(3)	8.600	110	68506	18.784
124) trans-1,4-Dichloro-2-Butene	(3)	8.630	53	316964	81.544
125) n-Propylbenzene	(3)	8.673	91	710797	18.281
126) 2-Chlorotoluene	(3)	8.722	126	152572	18.797
128) 4-Chlorotoluene	(3)	8.813	126	156488	18.425
127) 1,3,5-Trimethylbenzene	(3)	8.825	105	526651	18.317
130) tert-Butylbenzene	(3)	9.068	134	119111	18.297
131) Pentachloroethane	(3)	9.075	167	96465	18.827
132) 1,2,4-Trimethylbenzene	(3)	9.111	105	539023	18.209
133) sec-Butylbenzene	(3)	9.239	105	649920	18.169
134) 1,3-Dichlorobenzene	(3)	9.306	146	303391	17.997
136)*1,4-Dichlorobenzene-d4	(3)	9.354	152	479927	50.000
135) p-Isopropyltoluene	(3)	9.354	119	578280	18.007
138) 1,4-Dichlorobenzene	(3)	9.373	146	329909	19.051
139) 1,2,3-Trimethylbenzene	(3)	9.421	105	558940	18.583
141) Benzyl Chloride	(3)	9.476	91	396260	16.956
142) 1,3-Diethylbenzene	(3)	9.573	119	343079	17.898
144) 1,2-Dichlorobenzene	(3)	9.634	146	310223	19.198
143) 1,4-Diethylbenzene	(3)	9.634	119	359851	18.112
145) n-Butylbenzene	(3)	9.652	92	275763M	17.562
146) 1,2-Diethylbenzene	(3)	9.713	119	303064	18.808
148) 1,2-Dibromo-3-Chloropropane	(3)	10.182	75	54026	17.282
149) 1,3,5-Trichlorobenzene	(3)	10.334	180	250175	18.693
150) 1,2,4-Trichlorobenzene	(3)	10.748	180	231844	18.418
151) Hexachlorobutadiene	(3)	10.863	225	110298	17.571
152) Naphthalene	(3)	10.900	128	735531	18.084
153) 1,2,3-Trichlorobenzene	(3)	11.058	180	222048	17.891
154) 2-Methylnaphthalene	(3)	11.630	142	377632	15.168

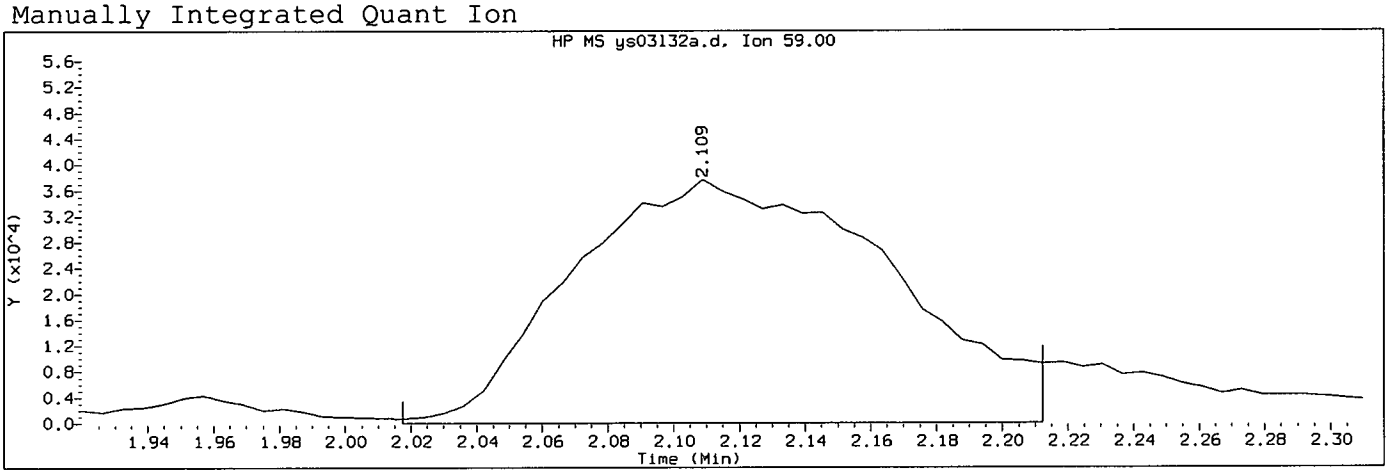
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Stephanie A. Selis
on 09/04/2012 at 05:45.
Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03132a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 02:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 02:27
Date, time and analyst ID of latest file update: 04-Sep-2012 02:36 sas00403

Sample Name: LCDY65 Lab Sample ID: LCDY65

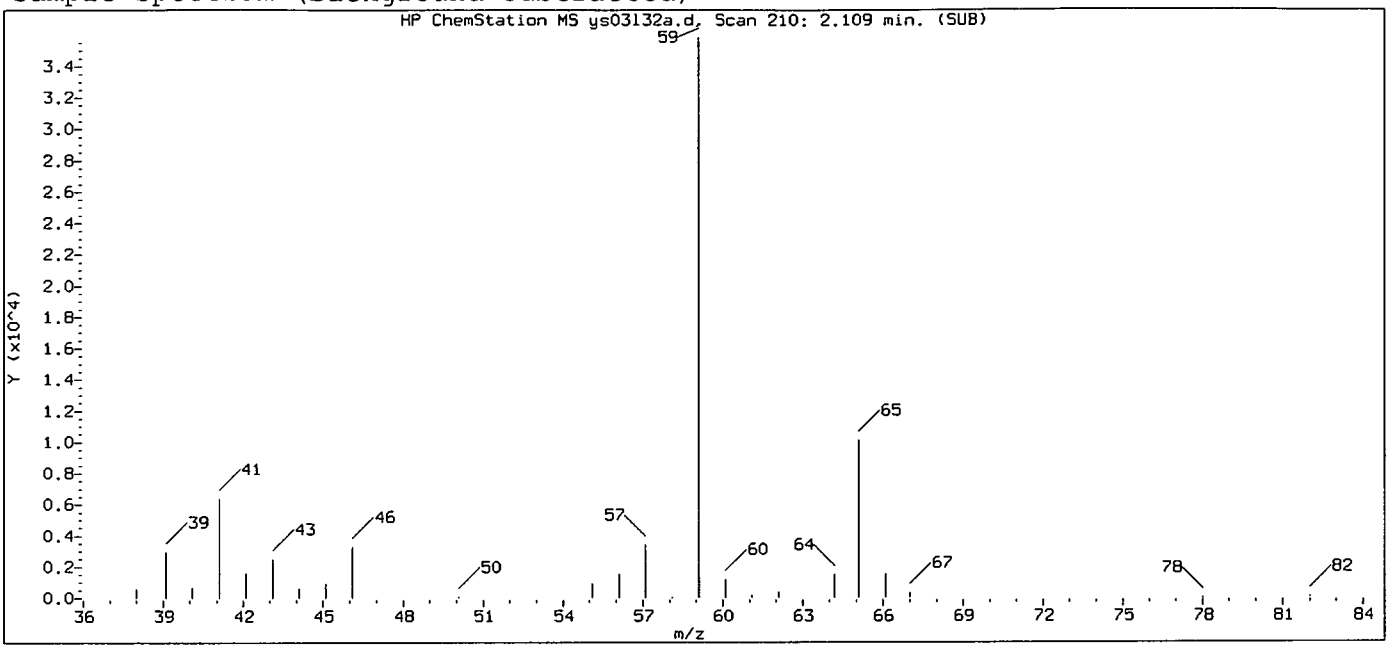
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 210		
Retention Time (minutes)	: 2.109		
Quant Ion	: 59.00		
Area (flag)	: 254333M		
On-Column Amount (ng)	: 150.7856		
Integration start scan	: 194	Integration stop scan:	226
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

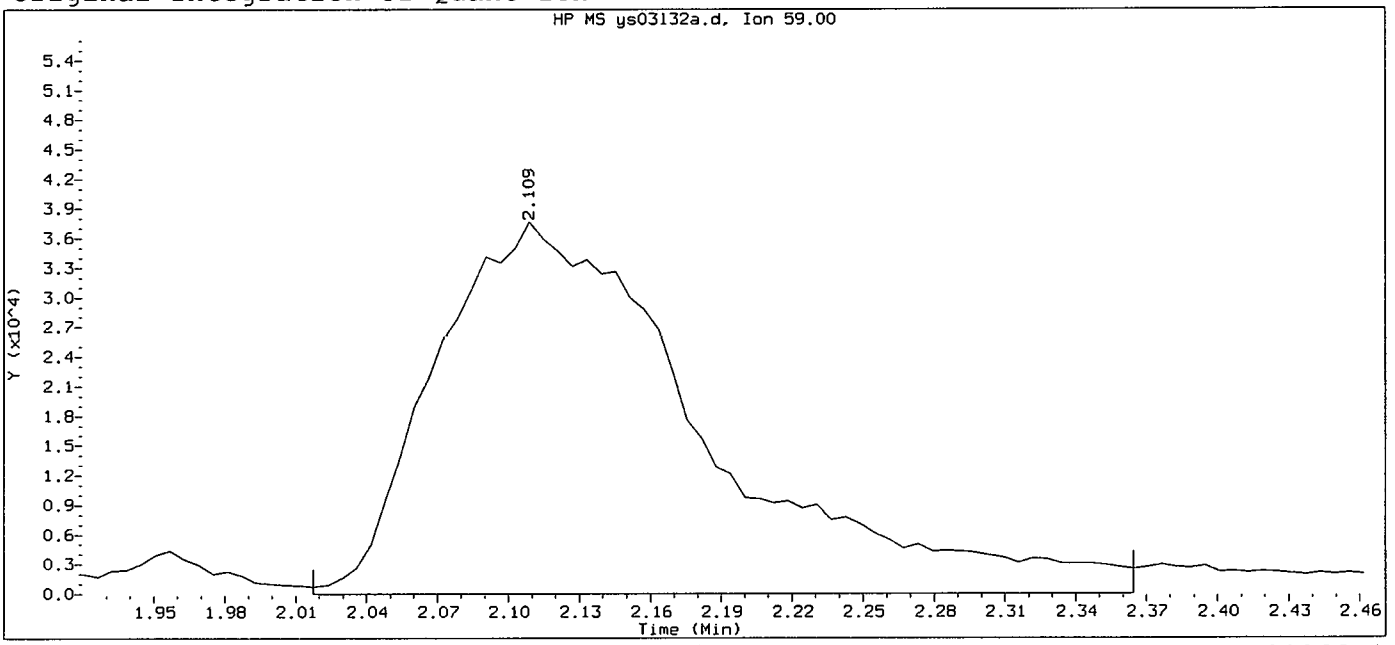
Analyst responsible for change: Digitally signed by Stephanie A. Selis on 09/04/2012 at 05:45. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05.
Parallax ID: cmr00412

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03132a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 02:19 Analyst ID: SAS00403

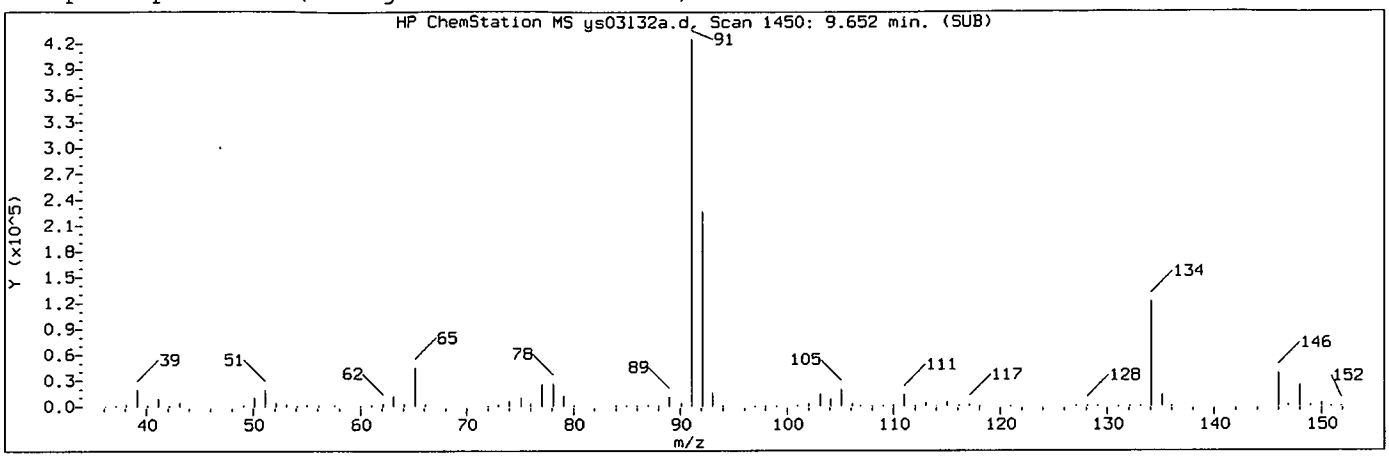
Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 02:27
Date, time and analyst ID of latest file update: 04-Sep-2012 02:34 Automation

Sample Name: LCDY65 Lab Sample ID: LCDY65

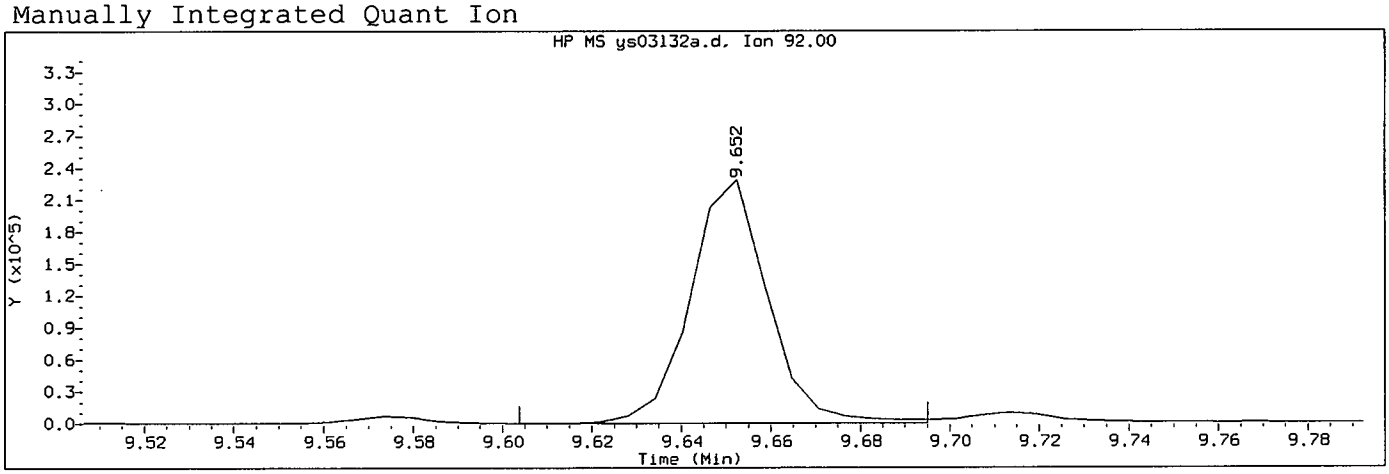
Compound Number	: 29		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 210		
Retention Time (minutes)	: 2.109		
Quant Ion	: 59.00		
Area	: 298715		
On-column Amount (ng)	: 177.0975		
Integration start scan	: 194	Integration stop scan:	251
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Stephanie A. Selis on 09/04/2012 at 05:45.
Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03132a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 02:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 02:27
Date, time and analyst ID of latest file update: 04-Sep-2012 02:36 sas00403

Sample Name: LCDY65 Lab Sample ID: LCDY65

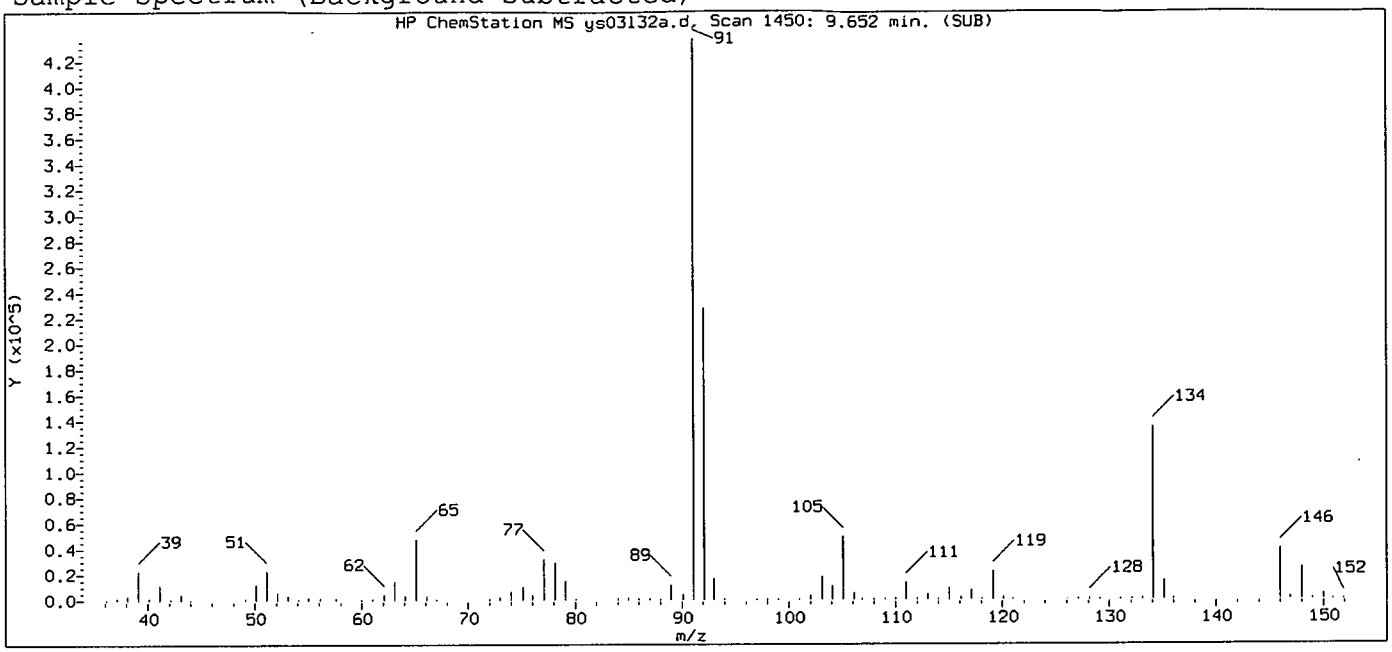
Compound Number	: 145		
Compound Name	: n-Butylbenzene		
Scan Number	: 1450		
Retention Time (minutes)	: 9.652		
Quant Ion	: 92.00		
Area (flag)	: 275763M		
On-Column Amount (ng)	: 17.5620		
Integration start scan	: 1441	Integration stop scan:	1456
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

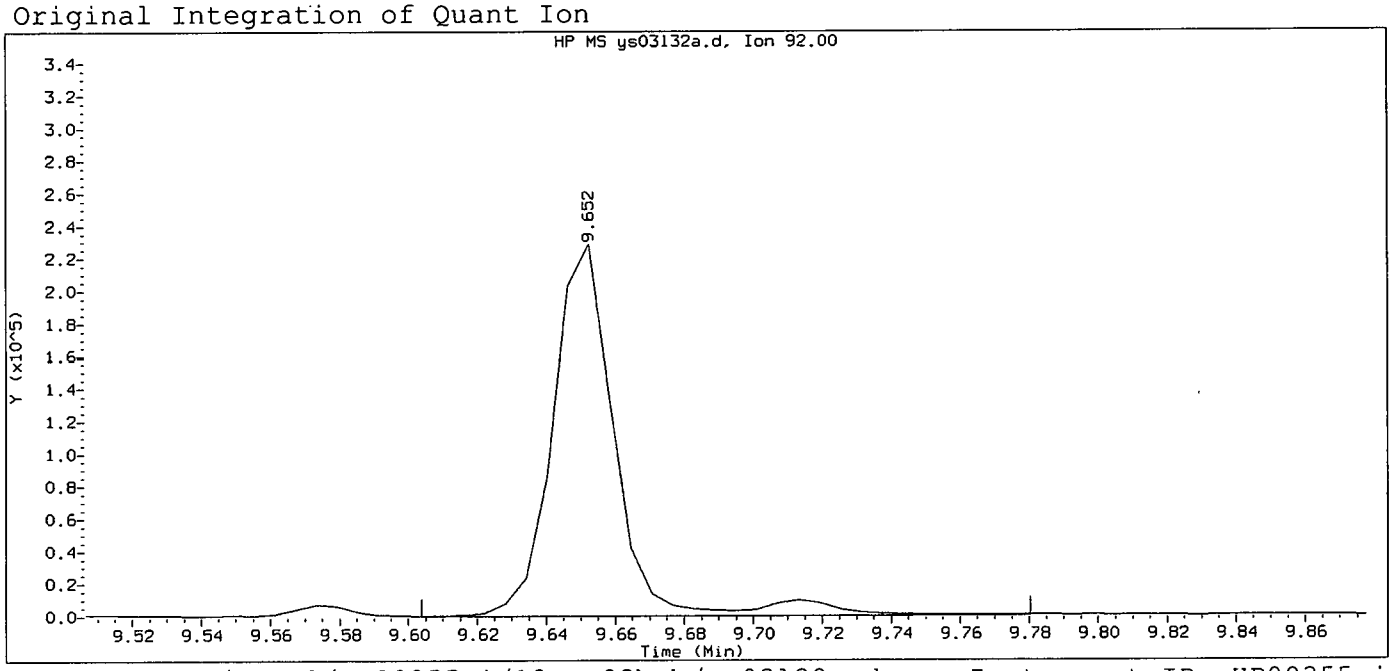
Analyst responsible for change: Digitally signed by Stephanie A. Selis on 09/04/2012 at 05:45. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Christine M. Ratcliff on 09/04/2012 at 19:05.
Parallax ID: cmr00412

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/12sep03b.b/ys03132a.d Instrument ID: HP09355.i
Injection date and time: 04-SEP-2012 02:19 Analyst ID: SAS00403

Method used: /chem2/HP09355.i/12sep03b.b/Y8260W.m Sublist used: 8260WPLM
Calibration date and time: 04-SEP-2012 02:27
Date, time and analyst ID of latest file update: 04-Sep-2012 02:34 Automation

Sample Name: LCDY65 Lab Sample ID: LCDY65

Compound Number : 145
Compound Name : n-Butylbenzene
Scan Number : 1450
Retention Time (minutes): 9.652
Quant Ion : 92.00
Area : 291327
On-column Amount (ng) : 18.5532
Integration start scan : 1441 Integration stop scan: 1470
Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephanie A. Selis on 09/04/2012 at 05:45.
Target 3.5 esignature user ID: sas00403

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Type I Data Package

Prepared for:

MWH Americas, Inc.
P.O. Box 6610
Broomfield CO 80021

Project: GE Patillas Puerto Rico
Water Samples
Collected on 08/21/12

SDG# PTL07

GROUP	SAMPLE NUMBERS
1331141	6766763-6766768

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M Kauffman **Date:** **09/18/2012**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Natalie Luciano at Ext. 1881.

Total Number of Pages 311

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Table of Contents for SDG# PTL07

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Sample Reference List for SDG Number PTL09 with a Data Package Type of I

12136 - MWH Americas, Inc.

Project: GE Patillas Puerto Rico

Lab Sample Number	Lab Sample Code	Client Sample Description
6769183	PAT-T	TB-082712 Water COC: 272728
6769184	PAT23	P-23 Grab Water COC: 272728
6769185	PAT11	P-11 Grab Water COC: 272728
6769186	PAT-4	P-4 Grab Water COC: 272728
6769187	PAT-9	P-9 Grab Water COC: 272728
6769188	PAT10	P-10A Grab Water COC: 272728
6769189	PAT-8	P-8 Grab Water COC: 272728
6769190	PAT15	P-15DD Grab Water COC: 272728
6769191	PAT-7	P-7 Grab Water COC: 272728
6769192	PAT7A	P-7A Grab Water COC: 272728
6769193	PATVA	Water for Vault Grab Water COC: 274795
6769194	PAT-D	Duplicate Grab Water COC: 274794
6769195	PAT16	P-16S Grab Water COC: 274794
6769196	PAT16	P-16SMS Grab Water COC: 274794
6769197	PAT16	P-16SMSD Grab Water COC: 274794
6769198	PA19D	P-19D Grab Water COC: 274794
6769199	PA19S	P-19S Grab Water COC: 274794
6769200	PAT17	P-17D Grab Water COC: 274794
6769201	PA18S	P-18S Grab Water COC: 274794
6769202	PA18D	P-18D Grab Water COC: 274794
6769203	PA20S	P-20S Grab Water COC: 274794
6769204	PA20D	P-20D Grab Water COC: 274794

Analysis Request/ Environmental Services Chain of Custody

Lancaster Laboratories

For Lancaster Laboratories use only

Acct. # 12136 Group# 1331673 Sample # 6769183-204

COC # 272728

Please print. Instructions on reverse side correspond with circled numbers.

(1) Client: MWH Americas Inc Acct. #:

Project Name/#: GE Patillas PWSID #:

Project Manager: Omar Negroni P.O.#: 10501055.010103

Sampler: Felix Ocasio Quote #:

Name of state where samples were collected: Puerto Rico

For Lab Use Only
FSC:
SCR#:

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Matrix: Soil	Water (Potable / NPDES)	Other	(4) Total # of Containers	(5) Analyses Requested: Preservation Codes — H: 8260B	Remarks
TB-082712	082712		X			X		3	X	* TB-082712 WAS
P-23	082712	1045	X			X		3	X	Collected by Field
P-11	082712	1050	X			X		3	X	Tech. Lab not supply.
P-4	082712	1100	X			X		3	X	
P-9	082712	1110	X			X		3	X	
P-10A	082712	1126	X			X		3	X	
P-8	082712	1136	X			X		3	X	
P-15DD	082712	1200	X			X		3	X	
P-7	082712	1145	X			X		3	X	
P-7A	082712	1150	X			X		3	X	

FAD

(6) Temperature of samples upon receipt (if requested)

(7) **Turnaround Time Requested** (TAT) (please circle): (Normal) Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)

Date results are needed:

Rush results requested by (please circle): Phone Fax E-mail

Phone #: Fax #:

E-mail address: Gnegron@gesonline.com

(8) **Data Package Options** (please circle if required)

Type I (validation/NJ Reg)
Type II (Tier II)
Type III (Reduced NJ)
Type IV (CLP SOW)
Type VI (Raw Data Only)

TX TRRP-13
MA MCP CT RCP

SDG Complete? Yes No

Site-specific QC (MS/MSD/Dup)? (Yes) No
(If yes, indicate QC sample and submit triplicate volume.)

Internal COC Required? Yes / No

Relinquished by:	Date	Time	Received by:	Date	Time
Felix Ocasio / GES	082712		Fedex 799451952279		

(9)

Analysis Request/ Environmental Services Chain of Custody

Lancaster Laboratories

For Lancaster Laboratories use only

Acct. # 12136 Group# 1331673 Sample # 6769183-204

COC # 274795

Please print. Instructions on reverse side correspond with circled numbers.

(1) Client: MWH Americas Inc Acct. #:

Project Name/#: GE Patillas PWSID #:

Project Manager: Omar Negron P.O.#: 10501055.010103

Sampler: Felix Ocasio Quote #:

Name of state where samples were collected: Puerto Rico

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Matrix (4) Soil	Potable / NPDES (Check if Applicable)	Water	Other	Total # of Containers	(5) Analyses Requested — Preservation Codes: 8260B	Remarks
Water for Vault	082712		X				X		3	X	

FAO

FAO

FAO

For Lab Use Only

FSC:

SCR#:

Preservation Codes

H=HCl T=Thiosulfate

N=HNO_3 B=NaOH

S=H_2SO_4 O=Other

(6) Temperature of samples upon receipt (if requested)

(7) **Turnaround Time Requested** (TAT) (please circle): (Normal) Rush

(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)

Date results are needed:

Rush results requested by (please circle): Phone Fax E-mail

Phone #: Fax #:

E-mail address: omegron@geonline.com

(8) **Data Package Options** (please circle if required)

Type I (validation/NJ Reg) TX TRRP-13

Type II (Tier II) MA MCP CT RCP

Type III (Reduced NJ)

Type IV (CLP SOW)

Type VI (Raw Data Only)

SDG Complete? Yes No

Site-specific QC (MS/MSD/Dup)? Yes (No)

(If yes, indicate QC sample and submit triplicate volume.)

Internal COC Required? Yes / No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Felix Ocasio / GES	082712		Fedex 899451952279		
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
			Patricia A. Coyle	8/28/12	0925

Analysis Request/ Environmental Services Chain of Custody

Lancaster Laboratories

For Lancaster Laboratories use only

Acct. # 12134 Group# 1331673 Sample # 6769183-204

COC # 274794

Please print. Instructions on reverse side correspond with circled numbers.

(1) Client: MWH Americas Inc Acct. #:

Project Name/#: GE Patillas PWSID #:

Project Manager: Omar Negron P.O.#: 10501055.010103

Sampler: Felix Ocasio Quote #:

Name of state where samples were collected: Puerto Rico

For Lab Use Only
FSC:
SCR#:

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other

(6) Temperature of samples upon receipt (if requested)

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Matrix (4) Soil	Water (Check if ☐ Potable ☐ NPDES)	Other	Total # of Containers	(5) Analyses Requested / Preservation Codes: 8260B, FAO	Remarks
Duplicate	082712	1223	X			X		3	X	
P-16S	082712	1234	X			X		3	X	
MS/MSD P-16S	082712	1240	X			X		3	X	
P-19D	082712	1256	X			X		3	X	
P-19S	082712	1300	X			X		3	X	
P-17D	082712	1310	X			X		3	X	
P-18S	082712	1315	X			X		3	X	
P-18D	082712	1323	X			X		3	X	
P-20S	082712	1330	X			X		3	X	
P-20D	082712	1335	X			X		3	X	

(7) **Turnaround Time Requested** (TAT) (please circle): (Normal) Rush
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)

Date results are needed:

Rush results requested by (please circle): Phone Fax E-mail

Phone #: Fax #:

E-mail address: oNegron@gesonline.com

(8) **Data Package Options** (please circle if required)

Type I (validation/NJ Reg)
Type II (Tier II)
Type III (Reduced NJ)
Type IV (CLP SOW)
Type VI (Raw Data Only)

TX TRRP-13
MA MCP CT RCP

SDG Complete? Yes No

Site-specific QC (MS/MSD/Dup)? (Yes) No
(If yes, indicate QC sample and submit triplicate volume.)

Internal COC Required? Yes / No

Relinquished by:	Date	Time	Received by:	Date	Time
Felix Ocasio /GES	082712	...	Fedex 8994519522 29		(9)
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by: Patricia Eyke	9/28/12	0925

G# 1331673

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Environmental Sample Administration
Receipt Documentation Log

Client/Project: MWH Americas Inc

Date of Receipt: 8/28/12

Time of Receipt: 0925

Source Code: SO

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2737	1.0	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

~~B~~ @ PL 8/28/12 ~~P-8D = P-8~~ @ PW 8/28/12 time = 1135,
P-8 labeled P-8D

Unpacker Signature/Emp#: Patrick Cyla 3472 **Date/Time:** 8/28/12 1342

Issued by Dept. 6042 Management

2174.06

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GC/MS Volatiles pH Log

Batch #: N122492AA

LLI#	pH	Date Checked	Initials/ Employee #	Comments
6769183	<2	9/5/2012	SG 3174	038a
6769184	<2	9/5/2012	SG 3174	038a
6769185	<2	9/5/2012	SG 3174	038a
6769186	<2	9/5/2012	SG 3174	038a
6769187	<2	9/5/2012	SG 3174	038a
6769188	<2	9/5/2012	SG 3174	038a
6769189	<2	9/5/2012	SG 3174	038a
6769190	<2	9/5/2012	SG 3174	038a
6769191	<2	9/5/2012	SG 3174	038a
6769192	<2	9/5/2012	SG 3174	038a
6769193	<2	9/5/2012	SG 3174	038a
6769194	<2	9/5/2012	SG 3174	038a
6769195	<2	9/5/2012	SG 3174	038a
6769196	<2	9/5/2012	SG 3174	038a
6769197	<2	9/5/2012	SG 3174	038a
6769198	<2	9/5/2012	SG 3174	038a
6769199	<2	9/5/2012	SG 3174	038a
6769200	<2	9/5/2012	SG 3174	038a
6769201	<2	9/5/2012	SG 3174	038a
6769202	<2	9/5/2012	SG 3174	038a
6769203	<2	9/5/2012	SG 3174	038a
6769204	<2	9/5/2012	SG 3174	038a

Bottle Code	Expected pH	Actual pH	Adjusted pH	Lot #	Preservative	Lab Submitted?	Sub-contracted?	Preservation Code	Date Entered
Sarah Guill									
SDG: PTL09									
Group: 1331673									
Sample: 6769183									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
Check Cl-					Present? N	Corrective Substance		Lot #	
Sample: 6769184									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
Check Cl-					Present? N	Corrective Substance		Lot #	
Sample: 6769185									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
Check Cl-					Present? N	Corrective Substance		Lot #	
Sample: 6769186									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
Check Cl-					Present? N	Corrective Substance		Lot #	
Sample: 6769187									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
Check Cl-					Present? N	Corrective Substance		Lot #	
Sample: 6769188									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
Check Cl-					Present? N	Corrective Substance		Lot #	

* linked sample

Bottle Code	Expected pH	Actual pH	Adjusted pH	Lot #	Preservative	Lab Submitted?	Sub-contracted?	Preservation Code	Date Entered
Sample: 6769189									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012

Check	Present?	Corrective Substance	Lot #
Cl-	N		

Sample: 6769190									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012

Check	Present?	Corrective Substance	Lot #
Cl-	N		

Sample: 6769191									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012

Check	Present?	Corrective Substance	Lot #
Cl-	N		

Sample: 6769192									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012

Check	Present?	Corrective Substance	Lot #
Cl-	N		

Sample: 6769193									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012

Check	Present?	Corrective Substance	Lot #
Cl-	N		

Sample: 6769194									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012

Check	Present?	Corrective Substance	Lot #
Cl-	N		

Sample: 6769195									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012

* linked sample

Bottle Code	Expected pH	Actual pH	Adjusted pH	Lot #	Preservative	Lab Submitted?	Sub-contracted?	Preservation Code	Date Entered
	Check Cl-				Present? N	Corrective Substance	Lot #		
Sample: 6769196									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
	Check Cl-				Present? N	Corrective Substance	Lot #		
Sample: 6769197									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
	Check Cl-				Present? N	Corrective Substance	Lot #		
Sample: 6769198									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
	Check Cl-				Present? N	Corrective Substance	Lot #		
Sample: 6769199									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
	Check Cl-				Present? N	Corrective Substance	Lot #		
Sample: 6769200									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
	Check Cl-				Present? N	Corrective Substance	Lot #		
Sample: 6769201									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012

* linked sample

Bottle Code	Expected pH	Actual pH	Adjusted pH	Lot #	Preservative	Lab Submitted?	Sub-contracted?	Preservation Code	Date Entered
	Check Cl-				Present? N	Corrective Substance	Lot #		
Sample: 6769202									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
	Check Cl-				Present? N	Corrective Substance	Lot #		
Sample: 6769203									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
	Check Cl-				Present? N	Corrective Substance	Lot #		
Sample: 6769204									
038A	<2	<2			HCl	Y	N	NA - Not applicable	09/05/2012
	Check Cl-				Present? N	Corrective Substance	Lot #		

* linked sample

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030B, December 1996.

10903 8260 Std. Water Master

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8260B, December 1996

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

MWH Americas, Inc.
P.O. Box 6610
Broomfield CO 80021

September 07, 2012

Project: GE Patillas Puerto Rico

Submittal Date: 08/28/2012
Group Number: 1331673
SDG: PTL09
PO Number: 10501055.010103
State of Sample Origin: PR

Client Sample Description	Lancaster Labs #	Collected
TB-082712 Water COC: 272728 GE Patillas - PR	6769183	08/27/2012
P-23 Grab Water COC: 272728 GE Patillas - PR P-23	6769184	08/27/2012 10:45
P-11 Grab Water COC: 272728 GE Patillas - PR P-11	6769185	08/27/2012 10:50
P-4 Grab Water COC: 272728 GE Patillas - PR P-4	6769186	08/27/2012 11:00
P-9 Grab Water COC: 272728 GE Patillas - PR P-9	6769187	08/27/2012 11:10
P-10A Grab Water COC: 272728 GE Patillas - PR P-10A	6769188	08/27/2012 11:26
P-8 Grab Water COC: 272728 GE Patillas - PR P-8	6769189	08/27/2012 11:36
P-15DD Grab Water COC: 272728 GE Patillas - PR P-15DD	6769190	08/27/2012 12:00
P-7 Grab Water COC: 272728 GE Patillas - PR P-7	6769191	08/27/2012 11:45
P-7A Grab Water COC: 272728 GE Patillas - PR P-7A	6769192	08/27/2012 11:50

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

MWH Americas, Inc.
P.O. Box 6610
Broomfield CO 80021

September 07, 2012

Water for Vault Grab Water COC: 274795	6769193	08/27/2012
GE Patillas - PR Water for Vault Duplicate Grab Water COC: 274794	6769194	08/27/2012 12:23
GE Patillas - PR Duplicate P-16S Grab Water COC: 274794	6769195	08/27/2012 12:34
GE Patillas - PR P-16S P-16SMS Grab Water COC: 274794	6769196	08/27/2012 12:40
GE Patillas - PR P-16S P-16SMSD Grab Water COC: 274794	6769197	08/27/2012 12:40
GE Patillas - PR P-16S P-19D Grab Water COC: 274794	6769198	08/27/2012 12:56
GE Patillas - PR P-19D P-19S Grab Water COC: 274794	6769199	08/27/2012 13:00
GE Patillas - PR P-19S P-17D Grab Water COC: 274794	6769200	08/27/2012 13:10
GE Patillas - PR P-17D P-18S Grab Water COC: 274794	6769201	08/27/2012 13:15
GE Patillas - PR P-18S P-18D Grab Water COC: 274794	6769202	08/27/2012 13:23
GE Patillas - PR P-18D P-20S Grab Water COC: 274794	6769203	08/27/2012 13:30
GE Patillas - PR P-20S P-20D Grab Water COC: 274794	6769204	08/27/2012 13:35
GE Patillas - PR P-20D		

METHODOLOGY

The specified methodologies used in obtaining the enclosed analytical results are indicated on the

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

MWH Americas, Inc.
P.O. Box 6610
Broomfield CO 80021

September 07, 2012

Laboratory Sample Analysis Record.

ELECTRONIC COPY TO MWH Americas, Inc. Attn: Bradly Toth
1 COPY TO Data Package Group

Respectfully Submitted,

Natalie R. Luciano
Specialist

(717) 556-7258

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Analysis Name	Units	6769183 TB-082712 Result	MDL	6769184 P-23 Result	MDL	6769185 P-11 Result	MDL
Acetone	ug/l	N.D.	6	28	6	9 J	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	N.D.	3	13	3	6 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5

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4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

Analysis Name	Units	6769186 P-4 Result	MDL	6769187 P-9 Result	MDL	6769188 P-10A Result	MDL
Acetone	ug/l	10 J	6	N.D.	6	10 J	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	8 J	3	N.D.	3	8 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1

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Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	5 J	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	N.D.	0.8	1 J	0.8	120	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

		6769189		6769190		6769191	
Analysis Name	Units	P-8 Result	MDL	P-15DD Result	MDL	P-7 Result	MDL

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Acetone	ug/l	N.D.	6	12	J	6	11	J	6
Benzene	ug/l	N.D.	0.5	N.D.		0.5	N.D.		0.5
Bromobenzene	ug/l	N.D.	1	N.D.		1	N.D.		1
Bromochloromethane	ug/l	N.D.	1	N.D.		1	N.D.		1
Bromodichloromethane	ug/l	N.D.	1	N.D.		1	N.D.		1
Bromoform	ug/l	N.D.	1	N.D.		1	N.D.		1
Bromomethane	ug/l	N.D.	1	N.D.		1	N.D.		1
2-Butanone	ug/l	N.D.	3	7	J	3	6	J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.		1	N.D.		1
sec-Butylbenzene	ug/l	N.D.	1	N.D.		1	N.D.		1
tert-Butylbenzene	ug/l	N.D.	1	N.D.		1	N.D.		1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.		1	N.D.		1
Chlorobenzene	ug/l	N.D.	0.8	N.D.		0.8	N.D.		0.8
Chloroethane	ug/l	N.D.	1	N.D.		1	N.D.		1
Chloroform	ug/l	N.D.	0.8	N.D.		0.8	N.D.		0.8
Chloromethane	ug/l	N.D.	1	N.D.		1	N.D.		1
2-Chlorotoluene	ug/l	N.D.	1	N.D.		1	N.D.		1
4-Chlorotoluene	ug/l	N.D.	1	N.D.		1	N.D.		1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.		2	N.D.		2
Dibromochloromethane	ug/l	N.D.	1	N.D.		1	N.D.		1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.		1	N.D.		1
Dibromomethane	ug/l	N.D.	1	N.D.		1	N.D.		1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.		1	N.D.		1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.		1	N.D.		1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.		1	N.D.		1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.		1	N.D.		1
1,1-Dichloroethane	ug/l	11	1	2	J	1	N.D.		1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.		1	N.D.		1
1,1-Dichloroethene	ug/l	170	0.8	59		0.8	N.D.		0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.		0.8	N.D.		0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.		0.8	N.D.		0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.		1	N.D.		1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.		1	N.D.		1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.		1	N.D.		1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.		1	N.D.		1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.		1	N.D.		1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.		1	N.D.		1
Ethylbenzene	ug/l	N.D.	0.8	N.D.		0.8	N.D.		0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.		2	N.D.		2
Isopropylbenzene	ug/l	N.D.	1	N.D.		1	N.D.		1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.		1	N.D.		1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.		0.5	N.D.		0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.		3	N.D.		3
Methylene Chloride	ug/l	N.D.	2	N.D.		2	N.D.		2
Naphthalene	ug/l	N.D.	1	N.D.		1	N.D.		1
n-Propylbenzene	ug/l	N.D.	1	N.D.		1	N.D.		1

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Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	52	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

		6769192		6769193		6769194	
Analysis Name	Units	P-7A	MDL	Water for Vault	MDL	Duplicate	MDL
		Result		Result		Result	
Acetone	ug/l	7 J	6	14 J	6	10 J	6
Benzene	ug/l	N.D.	0.5	3 J	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	7 J	3	N.D.	3	8 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1

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1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	47	1	5 J	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	2 J	0.8	9	0.8	120	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	26	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	3 J	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	1 J	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	95	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	41	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	2 J	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

Analysis Name	Units	6769195 P-16S Result	MDL	6769196 P-16SMS Result	MDL	6769197 P-16SMSD Result	MDL
Acetone	ug/l	9 J	6	160	6	160	6
Benzene	ug/l	N.D.	0.5	22	0.5	21	0.5
Bromobenzene	ug/l	N.D.	1	20	1	20	1

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Bromochloromethane	ug/l	N.D.	1	21	1	21	1
Bromodichloromethane	ug/l	N.D.	1	22	1	22	1
Bromoform	ug/l	N.D.	1	21	1	20	1
Bromomethane	ug/l	N.D.	1	12	1	15	1
2-Butanone	ug/l	7 J	3	160	3	160	3
n-Butylbenzene	ug/l	N.D.	1	20	1	20	1
sec-Butylbenzene	ug/l	N.D.	1	20	1	20	1
tert-Butylbenzene	ug/l	N.D.	1	20	1	20	1
Carbon Tetrachloride	ug/l	N.D.	1	25	1	25	1
Chlorobenzene	ug/l	N.D.	0.8	22	0.8	22	0.8
Chloroethane	ug/l	N.D.	1	15	1	18	1
Chloroform	ug/l	N.D.	0.8	21	0.8	20	0.8
Chloromethane	ug/l	N.D.	1	15	1	18	1
2-Chlorotoluene	ug/l	N.D.	1	20	1	19	1
4-Chlorotoluene	ug/l	N.D.	1	20	1	19	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	16	2	16	2
Dibromochloromethane	ug/l	N.D.	1	21	1	21	1
1,2-Dibromoethane	ug/l	N.D.	1	21	1	20	1
Dibromomethane	ug/l	N.D.	1	21	1	20	1
1,2-Dichlorobenzene	ug/l	N.D.	1	20	1	19	1
1,3-Dichlorobenzene	ug/l	N.D.	1	21	1	20	1
1,4-Dichlorobenzene	ug/l	N.D.	1	20	1	20	1
Dichlorodifluoromethane	ug/l	N.D.	1	17	1	20	1
1,1-Dichloroethane	ug/l	N.D.	1	23	1	23	1
1,2-Dichloroethane	ug/l	N.D.	1	22	1	22	1
1,1-Dichloroethene	ug/l	N.D.	0.8	25	0.8	24	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	22	0.8	22	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	23	0.8	23	0.8
1,2-Dichloropropane	ug/l	N.D.	1	21	1	21	1
1,3-Dichloropropane	ug/l	N.D.	1	20	1	20	1
2,2-Dichloropropane	ug/l	N.D.	1	23	1	23	1
1,1-Dichloropropene	ug/l	N.D.	1	21	1	21	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	21	1	21	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	20	1	19	1
Ethylbenzene	ug/l	N.D.	0.8	21	0.8	21	0.8
Hexachlorobutadiene	ug/l	N.D.	2	21	2	21	2
Isopropylbenzene	ug/l	N.D.	1	22	1	22	1
p-Isopropyltoluene	ug/l	N.D.	1	20	1	20	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	20	0.5	20	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	96	3	95	3
Methylene Chloride	ug/l	N.D.	2	22	2	21	2
Naphthalene	ug/l	N.D.	1	16	1	16	1
n-Propylbenzene	ug/l	N.D.	1	20	1	20	1
Styrene	ug/l	N.D.	1	20	1	20	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	22	1	22	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	18	1	18	1

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Tetrachloroethene	ug/l	N.D.	0.8	24	0.8	24	0.8
Toluene	ug/l	N.D.	0.7	21	0.7	21	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	19	1	19	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	19	1	19	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	23	0.8	23	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	20	0.8	20	0.8
Trichloroethene	ug/l	N.D.	1	22	1	22	1
Trichlorofluoromethane	ug/l	N.D.	1	21	1	24	1
1,2,3-Trichloropropane	ug/l	N.D.	1	19	1	18	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	20	1	19	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	20	1	19	1
Vinyl Chloride	ug/l	N.D.	1	16	1	19	1
m+p-Xylene	ug/l	N.D.	0.8	43	0.8	43	0.8
o-Xylene	ug/l	N.D.	0.8	21	0.8	21	0.8

Analysis Name	Units	6769198 P-19D Result	MDL	6769199 P-19S Result	MDL	6769200 P-17D Result	MDL
Acetone	ug/l	12 J	6	14 J	6	6 J	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	9 J	3	9 J	3	6 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	3 J	0.8	2 J	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1

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1,1-Dichloroethene	ug/l	2 J	0.8	N.D.	0.8	1 J	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

		6769201		6769202		6769203	
Analysis Name	Units	P-18S	MDL	P-18D	MDL	P-20S	MDL
		Result		Result		Result	
Acetone	ug/l	12 J	6	11 J	6	14 J	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1

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2-Butanone	ug/l	8 J	3	9 J	3	9 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	3 J	0.8	2 J	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	14	0.8	21	0.8	N.D.	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1

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1,1,1-Trichloroethane	ug/l	1 J	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

Analysis Name	Units	6769204 P-20D Result	MDL
Acetone	ug/l	6 J	6
Benzene	ug/l	N.D.	0.5
Bromobenzene	ug/l	N.D.	1
Bromochloromethane	ug/l	N.D.	1
Bromodichloromethane	ug/l	N.D.	1
Bromoform	ug/l	N.D.	1
Bromomethane	ug/l	N.D.	1
2-Butanone	ug/l	6 J	3
n-Butylbenzene	ug/l	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8
Chloroethane	ug/l	N.D.	1
Chloroform	ug/l	N.D.	0.8
Chloromethane	ug/l	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2
Dibromochloromethane	ug/l	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1
Dibromomethane	ug/l	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1
1,1-Dichloroethene	ug/l	7	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL09

Report Date: 9/7/2012 13:41
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1,3-Dichloropropane	ug/l	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2
Isopropylbenzene	ug/l	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3
Methylene Chloride	ug/l	N.D.	2
Naphthalene	ug/l	N.D.	1
n-Propylbenzene	ug/l	N.D.	1
Styrene	ug/l	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8
Toluene	ug/l	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8
Trichloroethene	ug/l	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1
Vinyl Chloride	ug/l	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8

CAT No.	Analysis Name	Method	Trial ID	Batch	Analysis Date/Time	Analyst	Dilution
6769183	**TB-082712 Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1348	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1348	Emily R Styer	1
6769184	**P-23 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1411	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1411	Emily R Styer	1
6769185	**P-11 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1435	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1435	Emily R Styer	1
6769186	**P-4 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1458	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1458	Emily R Styer	1
6769187	**P-9 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1521	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1521	Emily R Styer	1
6769188	**P-10A Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1545	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1545	Emily R Styer	1
6769189	**P-8 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1608	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1608	Emily R Styer	1
6769190	**P-15DD Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1632	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1632	Emily R Styer	1
6769191	**P-7 Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1655	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1655	Emily R Styer	1
6769192	**P-7A Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1719	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1719	Emily R Styer	1
6769193	**Water for Vault Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1742	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1742	Emily R Styer	1
6769194	**Duplicate Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1806	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1806	Emily R Styer	1
6769195	**P-16S Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1829	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1829	Emily R Styer	1
6769196	**P-16SMS Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1852	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1852	Emily R Styer	1

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CAT No.	Analysis Name	Method	Trial ID	Batch	Analysis Date/Time	Analyst	Dilution
6769197	**P-16SMSD Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1916	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1916	Emily R Styer	1
6769198	**P-19D Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 1939	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 1939	Emily R Styer	1
6769199	**P-19S Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 2002	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 2002	Emily R Styer	1
6769200	**P-17D Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 2026	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 2026	Emily R Styer	1
6769201	**P-18S Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 2049	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 2049	Emily R Styer	1
6769202	**P-18D Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 2112	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 2112	Emily R Styer	1
6769203	**P-20S Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 2136	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 2136	Emily R Styer	1
6769204	**P-20D Grab Water**						
10903	Volatiles by 8260	SW-846 8260B	1	N122492AA	9/5/12 2158	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N122492AA	9/5/12 2158	Emily R Styer	1

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QC Comment

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

6769183 TB-082712 Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769184 P-23 Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769185 P-11 Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769186 P-4 Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769187 P-9 Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769188 P-10A Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769189 P-8 Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769190 P-15DD Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769191 P-7 Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769192 P-7A Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769193 Water for Vault Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769194 Duplicate Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769195 P-16S Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769196 P-16SMS Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769197 P-16SMSD Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769198 P-19D Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769199 P-19S Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769200 P-17D Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769201 P-18S Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769202 P-18D Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769203 P-20S Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

6769204 P-20D Grab Water

10903 8260 Std. Water Master
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

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Case Narrative/Conformance Summary

CLIENT: MWH Americas, Inc.
SDG: PTL09

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
6769183	TB-082712	X		1	Trip Blank
6769184	P-23	X		1	
6769185	P-11	X		1	
6769186	P-4	X		1	
6769187	P-9	X		1	
6769188	P-10A	X		1	
6769189	P-8	X		1	
6769190	P-15DD	X		1	
6769191	P-7	X		1	
6769192	P-7A	X		1	
6769193	Water for Vault	X		1	
6769194	Duplicate	X		1	Field Duplicate Sample
6769195	P-16S	X		1	Unspiked
6769196	P-16SMS	X		1	Matrix Spike
6769197	P-16SMSD	X		1	Matrix Spike Duplicate
6769198	P-19D	X		1	
6769199	P-19S	X		1	
6769200	P-17D	X		1	
6769201	P-18S	X		1	
6769202	P-18D	X		1	
6769203	P-20S	X		1	
6769204	P-20D	X		1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

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Case Narrative/Conformance Summary

CLIENT: MWH Americas, Inc.
SDG: PTL09

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample numbers: 6769183-6769204: Analysis: 10903)
Project defined calibration criteria are not met. The calibration is compliant with the method defined criteria.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

All QC is within specification.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 9/19/12 by
(Date)

Judi Brown
Judi Brown
Specialist

GC/MS VOLATILES CALCULATIONS:

1. Relative response factor (RRF)

$$RRF = \frac{Ax}{Ais} \times \frac{Cis}{Cx}$$

Where :
Ax = Area of the characteristic ion for the compound to be measured.
Ais = Area of the characteristic ion for the specific internal standard to be measured.
Cis = Concentration of the internal standard.
Cx = Concentration of the compound to be measured.

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{\text{Standard deviation}}{\text{mean}} \times 100$$

3. % Difference (%D)

$$\%D = \frac{RRFc - RRFi}{RRFi} \times 100$$

Where:
RRFc=Relative response factor from continuing calibration standard.
RRFi = Mean relative response factor from the initial calibration.

4. Concentration

$$\text{Concentration (ug/l)} = \frac{(Ax)\ (Is)\ (Df)}{(Ais)\ (RRF)}$$

Where:
Ax , Ais, RRF are as given in 1. above.
Is = Concentration of internal standard added in parts per billion (ug/l)
Df = Dilution factor

5. % Recovery (%Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:
SSR = Spiked sample result
SR = Sample result
SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{|\ MSR - MSDR\ |}{(1/2)\ (MSR+MSDR)} \times 100$$

Where:
MSR = Matrix spike recovery
MSDR = Matrix spike duplicate recovery

Quality Control and Calibration Summary Forms

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Quality Control Reference List
GC/MS Volatiles

CLIENT: MWH Americas, Inc.
SDG: PTL09

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
Volatiles by 8260	N122492AA	VBLKN08	09/05/2012 12:41:00
		LCSN08	09/05/2012 13:05:00
		6769183	09/05/2012 13:48:00
		6769184	09/05/2012 14:11:00
		6769185	09/05/2012 14:35:00
		6769186	09/05/2012 14:58:00
		6769187	09/05/2012 15:21:00
		6769188	09/05/2012 15:45:00
		6769189	09/05/2012 16:08:00
		6769190	09/05/2012 16:32:00
		6769191	09/05/2012 16:55:00
		6769192	09/05/2012 17:19:00
		6769193	09/05/2012 17:42:00
		6769194	09/05/2012 18:06:00
		6769195 UNSPK	09/05/2012 18:29:00
		6769196 MS	09/05/2012 18:52:00
		6769197 MSD	09/05/2012 19:16:00
		6769198	09/05/2012 19:39:00
		6769199	09/05/2012 20:02:00
		6769200	09/05/2012 20:26:00
		6769201	09/05/2012 20:49:00
		6769202	09/05/2012 21:12:00
		6769203	09/05/2012 21:36:00
		6769204	09/05/2012 21:58:00

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Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: PTL09
Matrix: LIQUID

Fraction: Volatiles by GC/MS

N122492AA / VBLKN08 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Dichlorodifluoromethane	09/05/12	N.D.	ug/l	1	5
Chloromethane	09/05/12	N.D.	ug/l	1	5
Vinyl Chloride	09/05/12	N.D.	ug/l	1	5
Bromomethane	09/05/12	N.D.	ug/l	1	5
Chloroethane	09/05/12	N.D.	ug/l	1	5
Trichlorofluoromethane	09/05/12	N.D.	ug/l	1	5
1,1-Dichloroethene	09/05/12	N.D.	ug/l	0.8	5
Methyl Tertiary Butyl Ether	09/05/12	N.D.	ug/l	0.5	5
Acetone	09/05/12	N.D.	ug/l	6	20
Ethylbenzene	09/05/12	N.D.	ug/l	0.8	5
1,1,1,2-Tetrachloroethane	09/05/12	N.D.	ug/l	1	5
m+p-Xylene	09/05/12	N.D.	ug/l	0.8	5
Methylene Chloride	09/05/12	N.D.	ug/l	2	5
o-Xylene	09/05/12	N.D.	ug/l	0.8	5
trans-1,2-Dichloroethene	09/05/12	N.D.	ug/l	0.8	5
Styrene	09/05/12	N.D.	ug/l	1	5
Bromoform	09/05/12	N.D.	ug/l	1	5
1,1-Dichloroethane	09/05/12	N.D.	ug/l	1	5
Isopropylbenzene	09/05/12	N.D.	ug/l	1	5
2-Butanone	09/05/12	N.D.	ug/l	3	10
1,1,2,2-Tetrachloroethane	09/05/12	N.D.	ug/l	1	5
Bromobenzene	09/05/12	N.D.	ug/l	1	5
cis-1,2-Dichloroethene	09/05/12	N.D.	ug/l	0.8	5
2,2-Dichloropropane	09/05/12	N.D.	ug/l	1	5
1,2,3-Trichloropropane	09/05/12	N.D.	ug/l	1	5
Bromochloromethane	09/05/12	N.D.	ug/l	1	5
n-Propylbenzene	09/05/12	N.D.	ug/l	1	5
Chloroform	09/05/12	N.D.	ug/l	0.8	5
2-Chlorotoluene	09/05/12	N.D.	ug/l	1	5
1,1,1-Trichloroethane	09/05/12	N.D.	ug/l	0.8	5
1,3,5-Trimethylbenzene	09/05/12	N.D.	ug/l	1	5
4-Chlorotoluene	09/05/12	N.D.	ug/l	1	5
1,1-Dichloropropene	09/05/12	N.D.	ug/l	1	5
Benzene	09/05/12	N.D.	ug/l	0.5	5
tert-Butylbenzene	09/05/12	N.D.	ug/l	1	5
Carbon Tetrachloride	09/05/12	N.D.	ug/l	1	5
1.2-Dichloroethane	09/05/12	N.D.	ug/l	1	5
Trichloroethene	09/05/12	N.D.	ug/l	1	5
1,2-Dichloropropane	09/05/12	N.D.	ug/l	1	5
1,2,4-Trimethylbenzene	09/05/12	N.D.	ug/l	1	5
sec-Butylbenzene	09/05/12	N.D.	ug/l	1	5
Dibromomethane	09/05/12	N.D.	ug/l	1	5
Bromodichloromethane	09/05/12	N.D.	ug/l	1	5
1,3-Dichlorobenzene	09/05/12	N.D.	ug/l	1	5
cis-1,3-Dichloropropene	09/05/12	N.D.	ug/l	1	5

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Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: PTL09
Matrix: LIQUID

Fraction: Volatiles by GC/MS

N122492AA / VBLKN08 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
p-Isopropyltoluene	09/05/12	N.D.	ug/l	1	5
1,4-Dichlorobenzene	09/05/12	N.D.	ug/l	1	5
4-Methyl-2-pentanone	09/05/12	N.D.	ug/l	3	10
Toluene	09/05/12	N.D.	ug/l	0.7	5
n-Butylbenzene	09/05/12	N.D.	ug/l	1	5
trans-1,3-Dichloropropene	09/05/12	N.D.	ug/l	1	5
1,2-Dichlorobenzene	09/05/12	N.D.	ug/l	1	5
1,1,2-Trichloroethane	09/05/12	N.D.	ug/l	0.8	5
1,2-Dibromo-3-chloropropane	09/05/12	N.D.	ug/l	2	5
Tetrachloroethene	09/05/12	N.D.	ug/l	0.8	5
1,3-Dichloropropane	09/05/12	N.D.	ug/l	1	5
1,2,4-Trichlorobenzene	09/05/12	N.D.	ug/l	1	5
Hexachlorobutadiene	09/05/12	N.D.	ug/l	2	5
Naphthalene	09/05/12	N.D.	ug/l	1	5
Dibromochloromethane	09/05/12	N.D.	ug/l	1	5
1,2-Dibromoethane	09/05/12	N.D.	ug/l	1	5
1,2,3-Trichlorobenzene	09/05/12	N.D.	ug/l	1	5
Chlorobenzene	09/05/12	N.D.	ug/l	0.8	5

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Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: PTL09
Matrix: LIQUID

Fraction: Volatiles by GC/MS

N122492AA	Dibromofluoromethane		1,2-Dichloroethane-d4		Toluene-d8		4-Bromofluorobenzene	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKN08	101	80 - 116	97	77 - 113	96	80 - 113	97	78 - 113
LCSN08	102	80 - 116	104	77 - 113	102	80 - 113	100	78 - 113
6769183	101	80 - 116	102	77 - 113	96	80 - 113	94	78 - 113
6769184	103	80 - 116	100	77 - 113	95	80 - 113	96	78 - 113
6769185	102	80 - 116	102	77 - 113	95	80 - 113	96	78 - 113
6769186	103	80 - 116	102	77 - 113	95	80 - 113	96	78 - 113
6769187	102	80 - 116	101	77 - 113	94	80 - 113	95	78 - 113
6769188	104	80 - 116	102	77 - 113	95	80 - 113	95	78 - 113
6769189	104	80 - 116	101	77 - 113	95	80 - 113	96	78 - 113
6769190	101	80 - 116	101	77 - 113	94	80 - 113	93	78 - 113
6769191	105	80 - 116	103	77 - 113	96	80 - 113	97	78 - 113
6769192	103	80 - 116	101	77 - 113	95	80 - 113	96	78 - 113
6769193	107	80 - 116	103	77 - 113	95	80 - 113	95	78 - 113
6769194	106	80 - 116	104	77 - 113	95	80 - 113	95	78 - 113
6769195	106	80 - 116	102	77 - 113	94	80 - 113	93	78 - 113
6769196 MS	104	80 - 116	105	77 - 113	102	80 - 113	100	78 - 113
6769197 MSD	103	80 - 116	104	77 - 113	102	80 - 113	100	78 - 113
6769198	103	80 - 116	101	77 - 113	96	80 - 113	97	78 - 113
6769199	105	80 - 116	104	77 - 113	94	80 - 113	94	78 - 113
6769200	105	80 - 116	103	77 - 113	95	80 - 113	95	78 - 113
6769201	104	80 - 116	103	77 - 113	94	80 - 113	94	78 - 113
6769202	104	80 - 116	99	77 - 113	94	80 - 113	95	78 - 113
6769203	106	80 - 116	105	77 - 113	95	80 - 113	95	78 - 113
6769204	106	80 - 116	105	77 - 113	96	80 - 113	96	78 - 113

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Quality Control Summary
Matrix Spike/Matrix Spike Duplicate

SDG: PTL09
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 6769195 MS: 6769196 MSD: 6769197 Analyte	Batch: N122492AA (Sample number(s): 6769183-6769204)								
	Spike Added ug/l	Unspiked Conc ug/l	MS Conc ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	%Rec Limits	%RPD	%RPD Limits
Dichlorodifluoromethane	20	N.D.	16.71	19.88	84	99	52-129	17	30
Chloromethane	20	N.D.	14.65	17.96	73	90	67-154	20	30
Vinyl Chloride	20	N.D.	16.09	19.36	80	97	66-133	18	30
Bromomethane	20	N.D.	12.19	15.06	61	75	38-149	21	30
Chloroethane	20	N.D.	14.65	17.88	73	89	51-145	20	30
Trichlorofluoromethane	20	N.D.	20.74	24.26	104	121	64-146	16	30
1,1-Dichloroethene	20	N.D.	24.69	24.47	123	122	85-142	1	30
Methyl Tertiary Butyl Ether	20	N.D.	20.11	19.9	101	100	72-126	1	30
1,1,1,2-Tetrachloroethane	20	N.D.	22.21	22.05	111	110	82-119	1	30
Acetone	150	8.84	155.01	159.17	97	100	52-139	3	30
Ethylbenzene	20	N.D.	21.16	20.82	106	104	71-134	2	30
m+p-Xylene	40	N.D.	43.09	42.87	108	107	79-125	1	30
Methylene Chloride	20	N.D.	21.75	21.26	109	106	78-133	2	30
o-Xylene	20	N.D.	21.03	20.8	105	104	79-125	1	30
Styrene	20	N.D.	20.27	19.9	101	99	78-125	2	30
trans-1,2-Dichloroethene	20	N.D.	23.17	22.58	116	113	87-126	3	30
1,1-Dichloroethane	20	N.D.	23.14	22.88	116	114	84-129	1	30
Bromoform	20	N.D.	20.81	20.34	104	102	48-118	2	30
Isopropylbenzene	20	N.D.	21.71	21.58	109	108	75-128	1	30
1,1,2,2-Tetrachloroethane	20	N.D.	18.18	17.94	91	90	72-128	1	30
2-Butanone	150	6.63	162.05	159.19	104	102	57-138	2	30
Bromobenzene	20	N.D.	20.41	20.02	102	100	82-115	2	30
cis-1,2-Dichloroethene	20	N.D.	22.04	21.75	110	109	85-125	1	30
1,2,3-Trichloropropane	20	N.D.	18.61	18.34	93	92	76-118	1	30
2,2-Dichloropropane	20	N.D.	22.72	22.54	114	113	69-135	1	30
Bromochloromethane	20	N.D.	20.72	20.84	104	104	76-134	1	30
n-Propylbenzene	20	N.D.	20.25	19.91	101	100	74-134	2	30
2-Chlorotoluene	20	N.D.	19.7	19.4	99	97	82-118	2	30
Chloroform	20	N.D.	20.86	20.47	104	102	81-134	2	30
1,1,1-Trichloroethane	20	N.D.	23.29	22.73	116	114	74-131	2	30
1,3,5-Trimethylbenzene	20	N.D.	19.67	19.45	98	97	76-120	1	30
1,1-Dichloropropene	20	N.D.	20.69	20.52	103	103	86-137	1	30
4-Chlorotoluene	20	N.D.	19.68	19.41	98	97	84-122	1	30
1,2-Dichloroethane	20	N.D.	22.46	21.72	112	109	68-131	3	30
Benzene	20	N.D.	22.13	21.26	111	106	72-134	4	30
Carbon Tetrachloride	20	N.D.	25.37	25.11	127	126	72-135	1	30
tert-Butylbenzene	20	N.D.	20.18	19.91	101	100	81-121	1	30
Trichloroethene	20	N.D.	22.22	22.14	111	111	88-133	0	30
1,2,4-Trimethylbenzene	20	N.D.	19.7	19.4	99	97	72-130	2	30
1,2-Dichloropropane	20	N.D.	21.42	20.96	107	105	83-124	2	30
Dibromomethane	20	N.D.	20.78	20.46	104	102	83-119	2	30
sec-Butylbenzene	20	N.D.	20.05	19.95	100	100	79-125	0	30

Results are being reported on an as received basis.

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 6769195 MS: 6769196 MSD: 6769197 Analyte	Batch: N122492AA (Sample number(s): 6769183-6769204)								
	Spike Added ug/l	Unspiked Conc ug/l	MS Conc ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	%Rec Limits	%RPD	%RPD Limits
1,3-Dichlorobenzene	20	N.D.	20.53	20.25	103	101	86-121	1	30
Bromodichloromethane	20	N.D.	22.42	22.07	112	110	78-125	2	30
cis-1,3-Dichloropropene	20	N.D.	21.26	20.9	106	105	70-116	2	30
p-Isopropyltoluene	20	N.D.	20.4	20.31	102	102	76-123	0	30
1,4-Dichlorobenzene	20	N.D.	19.97	19.64	100	98	85-121	2	30
4-Methyl-2-pentanone	100	N.D.	96.27	95.17	96	95	63-123	1	30
Toluene	20	N.D.	21.43	21.31	107	107	80-125	1	30
n-Butylbenzene	20	N.D.	19.79	19.61	99	98	73-128	1	30
trans-1,3-Dichloropropene	20	N.D.	19.69	19.14	98	96	74-119	3	30
1,1,2-Trichloroethane	20	N.D.	20.48	19.84	102	99	77-124	3	30
1,2-Dichlorobenzene	20	N.D.	19.57	19.23	98	96	84-119	2	30
1,2-Dibromo-3-chloropropane	20	N.D.	15.99	15.98	80	80	54-134	0	30
Tetrachloroethene	20	N.D.	24.17	24.4	121	122	80-128	1	30
1,2,4-Trichlorobenzene	20	N.D.	19.36	19.05	97	95	70-124	2	30
1,3-Dichloropropane	20	N.D.	20.36	20.42	102	102	81-120	0	30
Hexachlorobutadiene	20	N.D.	21.02	20.85	105	104	56-134	1	30
Naphthalene	20	N.D.	16.36	16.45	82	82	52-125	1	30
1,2,3-Trichlorobenzene	20	N.D.	19.37	19.01	97	95	69-119	2	30
1,2-Dibromoethane	20	N.D.	20.65	20.37	103	102	77-116	1	30
Dibromochloromethane	20	N.D.	21.32	21.12	107	106	74-116	1	30
Chlorobenzene	20	N.D.	21.67	21.67	108	108	87-124	0	30

Results are being reported on an as received basis.

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Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: PTL09
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSN08	Batch: N122492AA (Sample number(s): 6769183-6769204)							
Analyte	Spike Added ug/l	LCS Conc ug/l	LCSD Conc ug/l	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Dichlorodifluoromethane	20	15.42		77		47-120		
Chloromethane	20	16.11		81		60-129		
Vinyl Chloride	20	16.49		82		56-123		
Bromomethane	20	13.25		66		44-120		
Chloroethane	20	13.93		70		49-129		
Trichlorofluoromethane	20	19.53		98		56-128		
1,1-Dichloroethene	20	21.1		105		80-120		
Methyl Tertiary Butyl Ether	20	19.88		99		68-121		
1,1,1,2-Tetrachloroethane	20	20.91		105		79-120		
Acetone	150	149.74		100		38-212		
Ethylbenzene	20	19.6		98		79-120		
m+p-Xylene	40	40.33		101		77-120		
Methylene Chloride	20	20.44		102		80-126		
o-Xylene	20	20.02		100		77-120		
Styrene	20	19.4		97		77-120		
trans-1,2-Dichloroethene	20	20.93		105		80-120		
1,1-Dichloroethane	20	20.69		103		79-120		
Bromoform	20	20.67		103		61-120		
Isopropylbenzene	20	20.15		101		77-120		
1,1,2,2-Tetrachloroethane	20	18.33		92		75-123		
2-Butanone	150	148.58		99		53-155		
Bromobenzene	20	19.57		98		80-120		
cis-1,2-Dichloroethene	20	20.33		102		80-120		
1,2,3-Trichloropropane	20	18.44		92		76-120		
2,2-Dichloropropane	20	20.19		101		67-124		
Bromochloromethane	20	19.6		98		77-130		
n-Propylbenzene	20	18.73		94		77-130		
2-Chlorotoluene	20	18.45		92		80-120		
Chloroform	20	19.14		96		77-122		
1,1,1-Trichloroethane	20	20.4		102		70-121		
1,3,5-Trimethylbenzene	20	18.38		92		68-124		
1,1-Dichloropropene	20	18.5		92		80-120		
4-Chlorotoluene	20	18.86		94		80-120		
1,2-Dichloroethane	20	20.58		103		64-130		
Benzene	20	20.23		101		77-121		
Carbon Tetrachloride	20	21.71		109		67-122		
tert-Butylbenzene	20	18.58		93		80-120		
Trichloroethene	20	20.15		101		80-120		
1,2,4-Trimethylbenzene	20	18.51		93		69-122		
1,2-Dichloropropane	20	20.43		102		80-120		
Dibromomethane	20	20.14		101		80-120		
sec-Butylbenzene	20	18.5		93		74-124		

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSN08	Batch: **N122492AA** (Sample number(s): 6769183-6769204)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,3-Dichlorobenzene	20	19.54		98		80-120		
Bromodichloromethane	20	21.45		107		73-120		
cis-1,3-Dichloropropene	20	21.24		106		78-120		
p-Isopropyltoluene	20	18.98		95		77-121		
1,4-Dichlorobenzene	20	19.12		96		80-120		
4-Methyl-2-pentanone	100	99.84		100		58-133		
Toluene	20	20.06		100		79-120		
n-Butylbenzene	20	18.25		91		73-130		
trans-1,3-Dichloropropene	20	19.72		99		79-120		
1,1,2-Trichloroethane	20	19.57		98		80-120		
1,2-Dichlorobenzene	20	18.85		94		80-120		
1,2-Dibromo-3-chloropropane	20	16.34		82		56-126		
Tetrachloroethene	20	21.94		110		79-120		
1,2,4-Trichlorobenzene	20	18.63		93		72-120		
1,3-Dichloropropane	20	19.97		100		80-120		
Hexachlorobutadiene	20	18.46		92		58-120		
Naphthalene	20	16.8		84		47-126		
1,2,3-Trichlorobenzene	20	18.64		93		71-120		
1,2-Dibromoethane	20	20.1		101		76-120		
Dibromochloromethane	20	20.64		103		72-120		
Chlorobenzene	20	20.52		103		80-120		

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_PTL09___

Lab File ID: ng15t01.d BFB Injection Date: 08/15/12

Instrument ID: HP07159 BFB Injection Time: 11:32

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.39
75	30.0 - 60.0% of mass 95	44.53
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.83
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	76.29
175	5.0 - 9.0% of mass 174	5.67 (7.43)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.57 (97.74)1
177	5.0 - 9.0% of mass 176	5.13 (6.89)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	ng15i03.d	08/15/12	12:42
02	VSTD20	ng15i04.d	08/15/12	13:05
03	VSTD4	ng15i06.d	08/15/12	13:51
04	VSTD1	ng15i07.d	08/15/12	14:15
05	0.5PPB - 0.5PPB	ng15m01.d	08/15/12	14:38
06	VSTD300	ng15i08.d	08/15/12	15:01
07	VSTD100	ng15i09.d	08/15/12	15:24
08	VSTD10	ng15i10.d	08/15/12	16:11
09	LCSNICV	ng15v01.d	08/15/12	16:34

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_PTL09___

Lab File ID: ns05t05.d BFB Injection Date: 09/05/12

Instrument ID: HP07159 BFB Injection Time: 12:02

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.20
75	30.0 - 60.0% of mass 95	45.86
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.01
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	82.97
175	5.0 - 9.0% of mass 174	6.11 (7.37)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.14 (96.59)1
177	5.0 - 9.0% of mass 176	5.41 (6.75)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	ns05c01.d	09/05/12	12:18
02	VBLKN08	ns05b05.d	09/05/12	12:41
03	LCSN08	ns05s31.d	09/05/12	13:05
04	6769183	ns05s32.d	09/05/12	13:48
05	6769184	ns05s33.d	09/05/12	14:11
06	6769185	ns05s34.d	09/05/12	14:35
07	6769186	ns05s35.d	09/05/12	14:58
08	6769187	ns05s36.d	09/05/12	15:21
09	6769188	ns05s37.d	09/05/12	15:45
10	6769189	ns05s38.d	09/05/12	16:08
11	6769190	ns05s39.d	09/05/12	16:32
12	6769191	ns05s40.d	09/05/12	16:55
13	6769192	ns05s41.d	09/05/12	17:19
14	6769193	ns05s42.d	09/05/12	17:42
15	6769194	ns05s43.d	09/05/12	18:06
16	6769195	ns05s44.d	09/05/12	18:29
17	6769196MS	ns05s45.d	09/05/12	18:52
18	6769197MSD	ns05s46.d	09/05/12	19:16
19	6769198	ns05s47.d	09/05/12	19:39
20	6769199	ns05s48.d	09/05/12	20:02
21	6769200	ns05s49.d	09/05/12	20:26
22	6769201	ns05s50.d	09/05/12	20:49

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_PTL09___

Lab File ID: ns05t05.d BFB Injection Date: 09/05/12

Instrument ID: HP07159 BFB Injection Time: 12:02

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.20
75	30.0 - 60.0% of mass 95	45.86
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.01
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	82.97
175	5.0 - 9.0% of mass 174	6.11 (7.37)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.14 (96.59)1
177	5.0 - 9.0% of mass 176	5.41 (6.75)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	6769202	ns05s51.d	09/05/12	21:12
24	6769203	ns05s52.d	09/05/12	21:36
25	6769204	ns05s53.d	09/05/12	21:58

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 08/15/12 08/15/12

Heated Purge: (Y/N) Y Calibration Times: 12:42 16:11

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

LAB FILE ID: RRF 1 = ng15i07.d RRF 4 = ng15i06.d RRF 10= ng15i10.d
RRF 20= ng15i04.d RRF 50= ng15i03.d RRF100= ng15i09.d RRF300= ng15i08.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	$\overline{RRF}$	% RSD	CAL. METHOD	
Dichlorodifluoromethane	0.2693	0.3678	0.2670	0.3612	0.3711	0.3320	0.3327	0.3288	13	AVG	
Chloromethane	#0.2610	0.3137	0.3190	0.2977	0.2987	0.2869	0.2721	0.2927	7	AVG	#
Vinyl Chloride	*0.2674	0.3101	0.3170	0.3067	0.3162	0.2820	0.2750	0.2963	7	AVG	*
Bromomethane	0.1808	0.2010	0.2044	0.1888	0.1849	0.1601	0.1351	0.1793	14	AVG	
Chloroethane	0.1440	0.1678	0.1705	0.1618	0.1583	0.1377	0.1217	0.1517	12	AVG	
Trichlorofluoromethane	0.2699	0.3682	0.3004	0.3544	0.3649	0.3287	0.3195	0.3295	11	AVG	
Ethanol		0.0941	0.1047	0.0964	0.1078	0.0978	0.0884	0.0982	7	AVG	
Acrolein		1.6942	1.7845	1.6676	1.7139	1.6717	1.6241	1.6927	3	AVG	
1,1-Dichloroethene	*0.1792	0.2123	0.2297	0.1924	0.2154	0.2040	0.1909	0.2034	8	AVG	*
Freon 113		0.2168	0.2211	0.1901	0.2201	0.2025	0.1899	0.2067	7	AVG	
Acetone		0.0364	0.0424	0.0422	0.0464	0.0446	0.0397	0.0420	8	AVG	
Methyl Iodide	0.2981	0.3642	0.4064	0.3494	0.3872	0.3675	0.3436	0.3595	10	AVG	
2-Propanol		0.6556	0.8539	0.6605	0.7690	0.7206	0.6876	0.7246	11	AVG	
Carbon Disulfide		0.6668	0.7383	0.6358	0.7287	0.6992	0.6582	0.6878	6	AVG	
Methyl Acetate		0.3146	0.3310	0.3059	0.3173	0.2966	0.2737	0.3065	6	AVG	
Allyl Chloride		0.4663	0.4632	0.4424	0.4255	0.3942	0.3855	0.4295	8	AVG	
Methylene Chloride	0.2638	0.2623	0.2802	0.2510	0.2646	0.2532	0.2380	0.2590	5	AVG	
t-Butyl Alcohol	1.2020	1.1709	1.4533	1.2027	1.2794	1.0780	1.0425	1.2041	11	AVG	
Acrylonitrile		0.1282	0.1519	0.1495	0.1677	0.1641	0.1546	0.1527	9	AVG	
trans-1,2-Dichloroethene	0.1895	0.2424	0.2621	0.2273	0.2511	0.2413	0.2261	0.2343	10	AVG	
Methyl Tertiary Butyl Ether	0.7390	0.8219	0.8946	0.8272	0.8735	0.8249	0.7748	0.8223	6	AVG	
n-Hexane	0.2517	0.3411	0.3449	0.2970	0.3374	0.3185	0.3047	0.3136	11	AVG	
1,2-Dichloroethene (total)	0.2126	0.2549	0.2825	0.2425	0.2661	0.2565	0.2427	0.2511	9	AVG	
1,1-Dichloroethane	#0.3663	0.4599	0.4985	0.4385	0.4750	0.4568	0.4341	0.4470	9	AVG	#
di-Isopropyl Ether	0.7555	0.8430	0.9163	0.8365	0.8748	0.8394	0.7825	0.8354	6	AVG	
2-Chloro-1,3-Butadiene		0.3493	0.3892	0.3345	0.3801	0.3580	0.3394	0.3584	6	AVG	
Ethyl t-Butyl Ether	0.7825	0.8223	0.9090	0.7958	0.8599	0.7984	0.7522	0.8172	6	AVG	
cis-1,2-Dichloroethene	0.2356	0.2674	0.3028	0.2577	0.2811	0.2717	0.2593	0.2679	8	AVG	
2-Butanone		0.1622	0.1882	0.1921	0.2209	0.2181	0.2067	0.1980	11	AVG	
2,2-Dichloropropane	0.2812	0.3212	0.3588	0.3077	0.3477	0.3317	0.3141	0.3232	8	AVG	
Propionitrile		1.0852	1.2986	1.3139	1.3675	1.2757	1.2957	1.2728	8	AVG	
Methacrylonitrile		0.1599	0.1860	0.1694	0.1796	0.1679	0.1577	0.1701	6	AVG	
Bromochloromethane		0.1341	0.1471	0.1400	0.1402	0.1332	0.1303	0.1375	4	AVG	
Tetrahydrofuran		1.1083	1.1704	1.1703	1.2027	1.1916	1.1972	1.1734	3	AVG	
Chloroform	*0.4195	0.4277	0.4618	0.3997	0.4327	0.4137	0.3966	0.4217	5	AVG	*
1,1,1-Trichloroethane	0.3089	0.3733	0.3807	0.3329	0.3567	0.3441	0.3317	0.3469	7	AVG	
Cyclohexane		0.4509	0.4570	0.3980	0.4551	0.4293	0.4139	0.4340	6	AVG	
Cyclohexane(mz 84)		0.3683	0.3833	0.3288	0.3810	0.3577	0.3492	0.3614	6	AVG	
Cyclohexane(mz 69)		0.1465	0.1431	0.1237	0.1421	0.1316	0.1283	0.1359	7	AVG	
1,1-Dichloropropene	0.3963	0.3784	0.3840	0.3199	0.3587	0.3397	0.3229	0.3571	9	AVG	
Carbon Tetrachloride	0.1839	0.2484	0.2773	0.2423	0.2836	0.2746	0.2695	0.2542	14	AVG	
Isobutyl Alcohol		0.3492	0.4592	0.3623	0.4074	0.3611	0.3560	0.3825	11	AVG	
Benzene	0.9124	1.0556	1.1527	0.9955	1.0806	1.0259	0.9667	1.0271	8	AVG	
1,2-Dichloroethane	0.2818	0.3251	0.3630	0.3253	0.3455	0.3261	0.3105	0.3253	8	AVG	
1,2-Dichloroethane(mz 98)		0.0314	0.0352	0.0331	0.0357	0.0343	0.0318	0.0336	5	AVG	
t-Amyl Methyl Ether	0.7012	0.7720	0.8595	0.7897	0.8369	0.7971	0.7660	0.7889	7	AVG	
n-Heptane		0.3456	0.3156	0.2674	0.2983	0.2903	0.2728	0.2983	10	AVG	
n-Butanol	0.1650	0.2472	0.3680	0.3069	0.3616	0.3308	0.3159	0.2993	24	2NDDEG	
Trichloroethene	0.2210	0.2634	0.2840	0.2415	0.2673	0.2557	0.2457	0.2541	8	AVG	
Methylcyclohexane		0.4271	0.4571	0.4270	0.4288	0.3895	0.4017	0.4218	6	AVG	
1,2-Dichloropropane	*0.2443	0.2850	0.3106	0.2840	0.3013	0.2887	0.2746	0.2841	7	AVG	*
Methyl Methacrylate		0.2696	0.3111	0.2821	0.3018	0.2835	0.2731	0.2869	6	AVG	

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 08/15/12 08/15/12

Heated Purge: (Y/N) Y Calibration Times: 12:42 16:11

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

LAB FILE ID: RRF 1 = ng15i07.d RRF 4 = ng15i06.d RRF 10= ng15i10.d
RRF 20= ng15i04.d RRF 50= ng15i03.d RRF100= ng15i09.d RRF300= ng15i08.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	$\overline{RRF}$	% RSD	CAL. METHOD	
Dibromomethane	0.1416	0.1667	0.1903	0.1745	0.1829	0.1769	0.1707	0.1719	9	AVG	
1,4-Dioxane		0.0762	0.1061	0.0871	0.1022	0.1002	0.0859	0.0929	12	AVG	
Bromodichloromethane	0.2042	0.2668	0.3098	0.2866	0.3214	0.3107	0.3059	0.2865	14	AVG	
2-Nitropropane		1.4278	1.5292	1.5498	1.7597	1.8073	1.9504	1.6707	12	AVG	
2-Chloroethyl Vinyl Ether		0.1569	0.1804	0.1934	0.2015	0.2139	0.2162	0.1937	12	AVG	
cis-1,3-Dichloropropene	0.3328	0.4064	0.4516	0.4061	0.4474	0.4321	0.4222	0.4141	10	AVG	
4-Methyl-2-Pentanone		0.4033	0.4008	0.4195	0.4645	0.4571	0.4140	0.4265	6	AVG	
Toluene	*0.8413	0.9240	1.0679	0.9495	1.0048	0.9596	0.8852	0.9475	8	AVG	*
trans-1,3-Dichloropropene	0.4312	0.5209	0.6097	0.5712	0.6263	0.5950	0.5742	0.5612	12	AVG	
Ethyl Methacrylate		0.6076	0.7376	0.6829	0.7513	0.6865	0.6512	0.6862	8	AVG	
1,1,2-Trichloroethane	0.3309	0.3570	0.4248	0.3783	0.4051	0.3700	0.3547	0.3744	9	AVG	
Tetrachloroethene	0.2912	0.3515	0.4156	0.3558	0.3916	0.3754	0.3496	0.3615	11	AVG	
1,3-Dichloropropane	0.5582	0.6007	0.7365	0.6637	0.7076	0.6651	0.6210	0.6504	9	AVG	
2-Hexanone		0.3482	0.4373	0.4275	0.5237	0.5140	0.4551	0.4510	14	AVG	
Dibromochloromethane	0.1915	0.2483	0.3402	0.3373	0.3836	0.3695	0.3638	0.3192	22	1STDEG	
1,2-Dibromoethane	0.2901	0.3515	0.4397	0.4089	0.4329	0.4093	0.3892	0.3888	13	AVG	
Chlorobenzene	#0.8766	1.0064	1.2138	1.0543	1.1285	1.0677	0.9837	1.0473	10	AVG	#
1,1,1,2-Tetrachloroethane	0.2385	0.2886	0.3713	0.3360	0.3641	0.3472	0.3291	0.3250	14	AVG	
Ethylbenzene	*	1.5810	1.9493	1.6877	1.8567	1.7588	1.5715	1.7342	9	AVG	*
m+p-Xylene		0.6747	0.8088	0.6978	0.7477	0.7026	0.5931	0.7041	10	AVG	
Xylene (Total)		0.6701	0.8065	0.6944	0.7425	0.6956	0.5909	0.7000	10	AVG	
o-Xylene		0.6608	0.8019	0.6878	0.7321	0.6817	0.5865	0.6918	10	AVG	
Styrene		1.0157	1.3047	1.1577	1.2580	1.1728	1.0317	1.1567	10	AVG	
Bromoform	#	0.1509	0.2360	0.2326	0.2790	0.2730	0.2775	0.2415	20	1STDEG	#
Isopropylbenzene		1.6488	1.9976	1.6597	1.8029	1.6933	1.4619	1.7107	10	AVG	
Cyclohexanone		0.3637	0.3663	0.3724	0.3908	0.3971	0.3659	0.3760	4	AVG	
1,1,2,2-Tetrachloroethane	#1.0358	1.0988	1.3521	1.1425	1.2274	1.1253	1.0523	1.1477	10	AVG	#
trans-1,4-Dichloro-2-Butene		0.2298	0.3259	0.2796	0.3159	0.2958	0.2613	0.2847	13	AVG	
Bromobenzene		0.7646	0.9117	0.7804	0.8348	0.7906	0.7397	0.8036	8	AVG	
1,2,3-Trichloropropane		0.2893	0.3804	0.3236	0.3438	0.3091	0.2806	0.3211	12	AVG	
n-Propylbenzene		3.4327	4.0754	3.4014	3.7659	3.5361	3.0665	3.5464	10	AVG	
2-Chlorotoluene		0.7356	0.8547	0.7102	0.7782	0.7398	0.7078	0.7544	7	AVG	
1,3,5-Trimethylbenzene		2.6197	3.0583	2.4940	2.7079	2.5927	2.3248	2.6329	9	AVG	
4-Chlorotoluene		0.8127	0.9582	0.7902	0.8455	0.7991	0.7447	0.8251	9	AVG	
tert-Butylbenzene		0.5610	0.6635	0.5401	0.5941	0.5711	0.5212	0.5752	9	AVG	
Pentachloroethane		0.3884	0.5181	0.4509	0.4800	0.4667	0.4587	0.4605	9	AVG	
1,2,4-Trimethylbenzene		2.4907	3.0654	2.5725	2.8301	2.6861	2.3731	2.6697	9	AVG	
sec-Butylbenzene		3.1718	3.5341	2.9148	3.2269	3.1003	2.6545	3.1004	10	AVG	
p-Isopropyltoluene		2.4898	2.9915	2.5693	2.8363	2.7074	2.2326	2.6378	10	AVG	
1,3-Dichlorobenzene		1.0738	1.4767	1.3696	1.5148	1.4384	1.2601	1.3556	12	AVG	
1,4-Dichlorobenzene		1.9654	1.9743	1.6341	1.7093	1.5728	1.4393	1.7159	13	AVG	
1,2,3-Trimethylbenzene		2.7817	3.3216	2.9241	2.9009	2.7357	2.5017	2.8610	9	AVG	
Benzyl Chloride		0.9912	1.6407	1.7876	2.2263	2.1774	2.1343	1.8263	26	1STDEG	
n-Butylbenzene		1.3929	1.6250	1.3680	1.4808	1.3204	1.1606	1.3913	11	AVG	
1,2-Dichlorobenzene		1.5759	1.7631	1.5160	1.5952	1.4934	1.3912	1.5558	8	AVG	
1,3-Diethylbenzene		1.4621	1.8217	1.6891	1.7053	1.6142	1.4876	1.6300	8	AVG	
1,4-Diethylbenzene		1.4437	1.7552	1.5790	1.6299	1.5384	1.3940	1.5567	8	AVG	
1,2-Diethylbenzene		2.3775	2.3013	1.8705	1.7758	1.6280	1.5078	1.9101	19	2NDDEG	
1,2-Dibromo-3-Chloropropane		0.2326	0.2720	0.2545	0.2860	0.2704	0.2609	0.2627	7	AVG	
1,2,4-Trichlorobenzene		1.0478	1.2075	1.0568	1.1104	1.0596	0.9061	1.0647	9	AVG	
Hexachlorobutadiene		0.3459	0.4119	0.3707	0.3800	0.3824	0.3274	0.3697	8	AVG	
Naphthalene	4.4035	3.8650	4.3403	3.9499	4.1652	3.9114	3.2179	3.9790	10	AVG	

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 08/15/12 08/15/12

Heated Purge: (Y/N) Y Calibration Times: 12:42 16:11

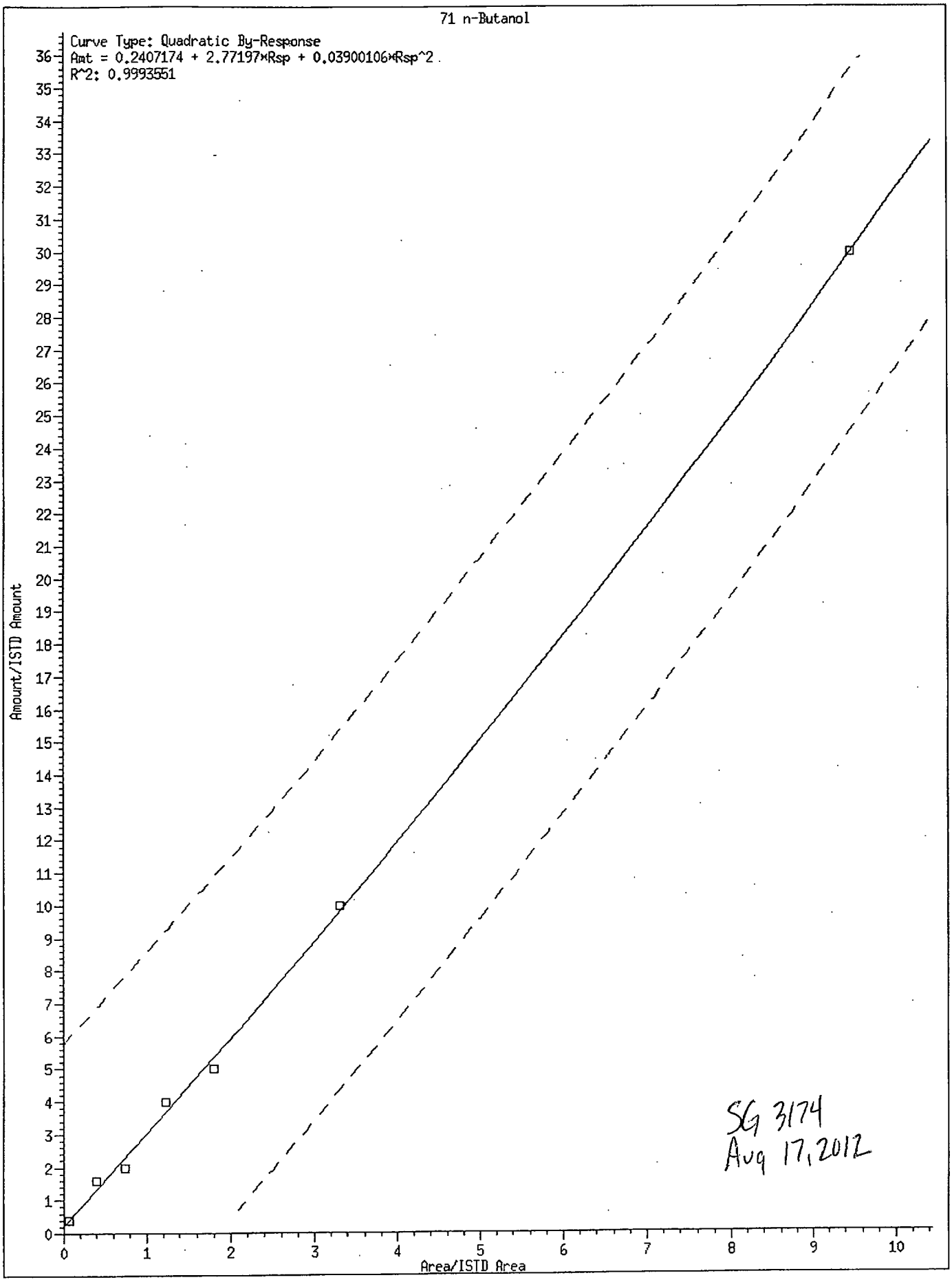
Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

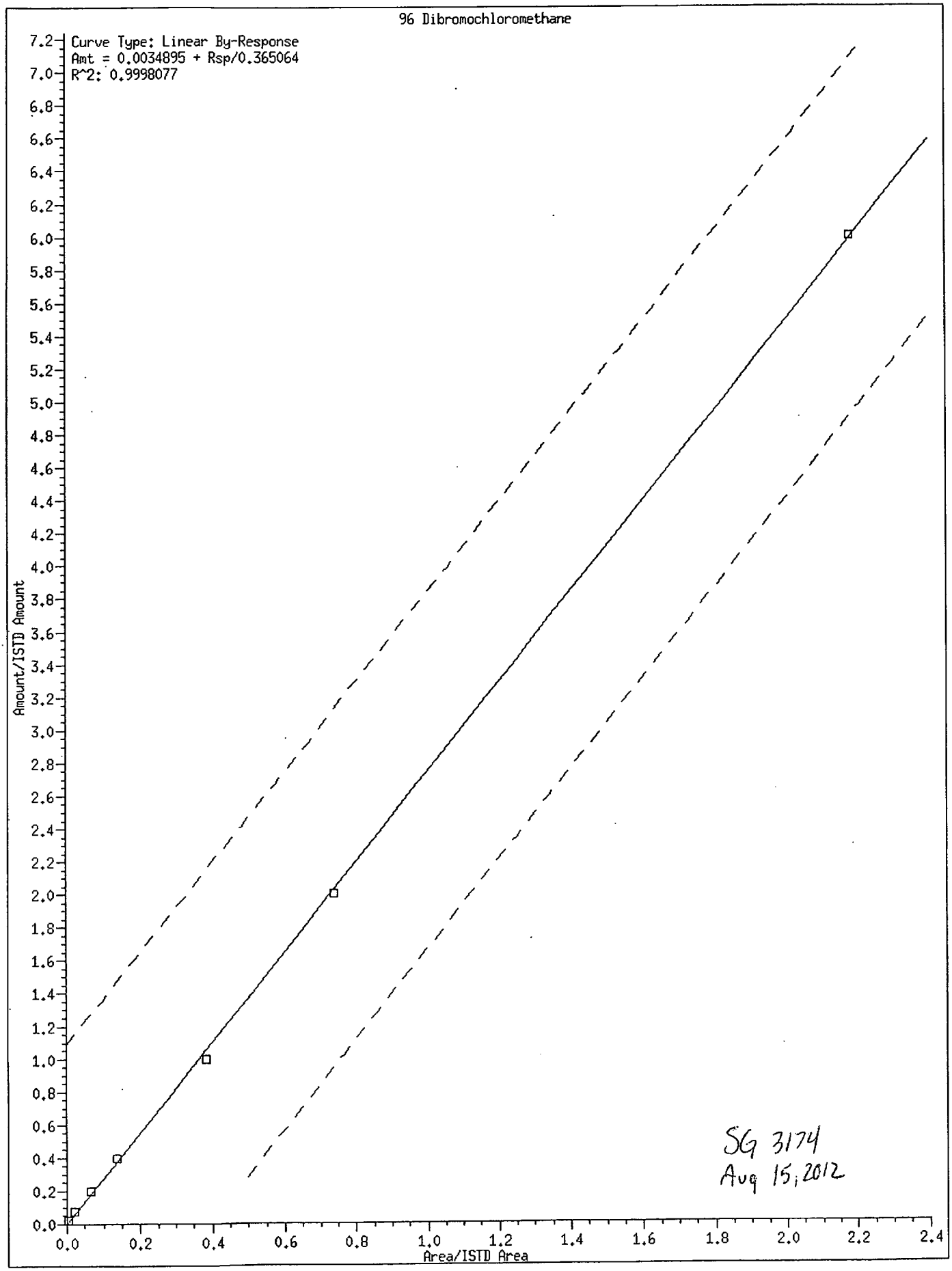
LAB FILE ID: RRF 1 = ng15i07.d RRF 4 = ng15i06.d RRF 10= ng15i10.d
RRF 20= ng15i04.d RRF 50= ng15i03.d RRF100= ng15i09.d RRF300= ng15i08.d

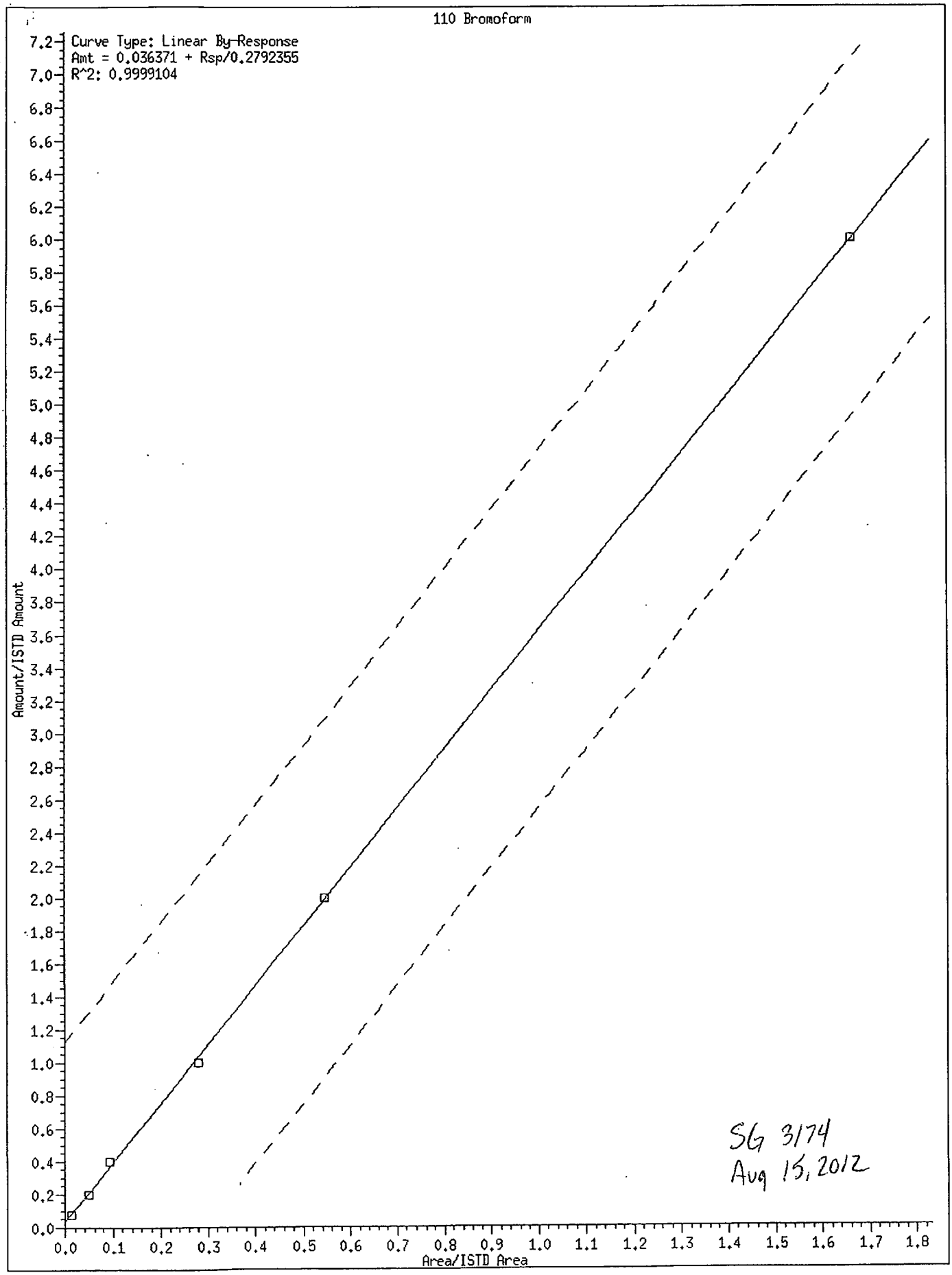
COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	$\overline{RRF}$	% RSD	CAL. METHOD
1,2,3-Trichlorobenzene		1.0716	1.2130	1.0810	1.1073	1.0514	0.8872	1.0686	10	AVG
2-Methylnaphthalene		2.6497	2.5650	2.4506	2.3149	2.2217	1.7964	2.3330	13	AVG
Dibromofluoromethane	0.2215	0.2259	0.2234	0.2207	0.2241	0.2239	0.2249	0.2235	1	AVG
Dibromofluoromethane(mz111)	0.2269	0.2277	0.2296	0.2268	0.2286	0.2286	0.2298	0.2283	1	AVG
Toluene-d8(mz100)	0.8970	0.8910	0.9413	0.9557	0.9556	0.9564	0.9519	0.9356	3	AVG
1,2-Dichloroethane-d4	0.0594	0.0611	0.0609	0.0605	0.0590	0.0579	0.0598	0.0598	2	AVG
1,2-Dichloroethane-d4(mz104)	0.0379	0.0382	0.0377	0.0372	0.0379	0.0383	0.0383	0.0380	1	AVG
1,2-Dichloroethane-d4(mz65)	0.2626	0.2676	0.2691	0.2699	0.2552	0.2553	0.2586	0.2626	2	AVG
Toluene-d8	1.3529	1.3400	1.4103	1.4465	1.4222	1.4220	1.3986	1.3989	3	AVG
4-Bromofluorobenzene	0.5011	0.4978	0.5165	0.5074	0.5037	0.5142	0.5194	0.5086	2	AVG
4-Bromofluorobenzene(mz174)	0.3857	0.3760	0.4124	0.4053	0.3993	0.4045	0.4051	0.3983	3	AVG

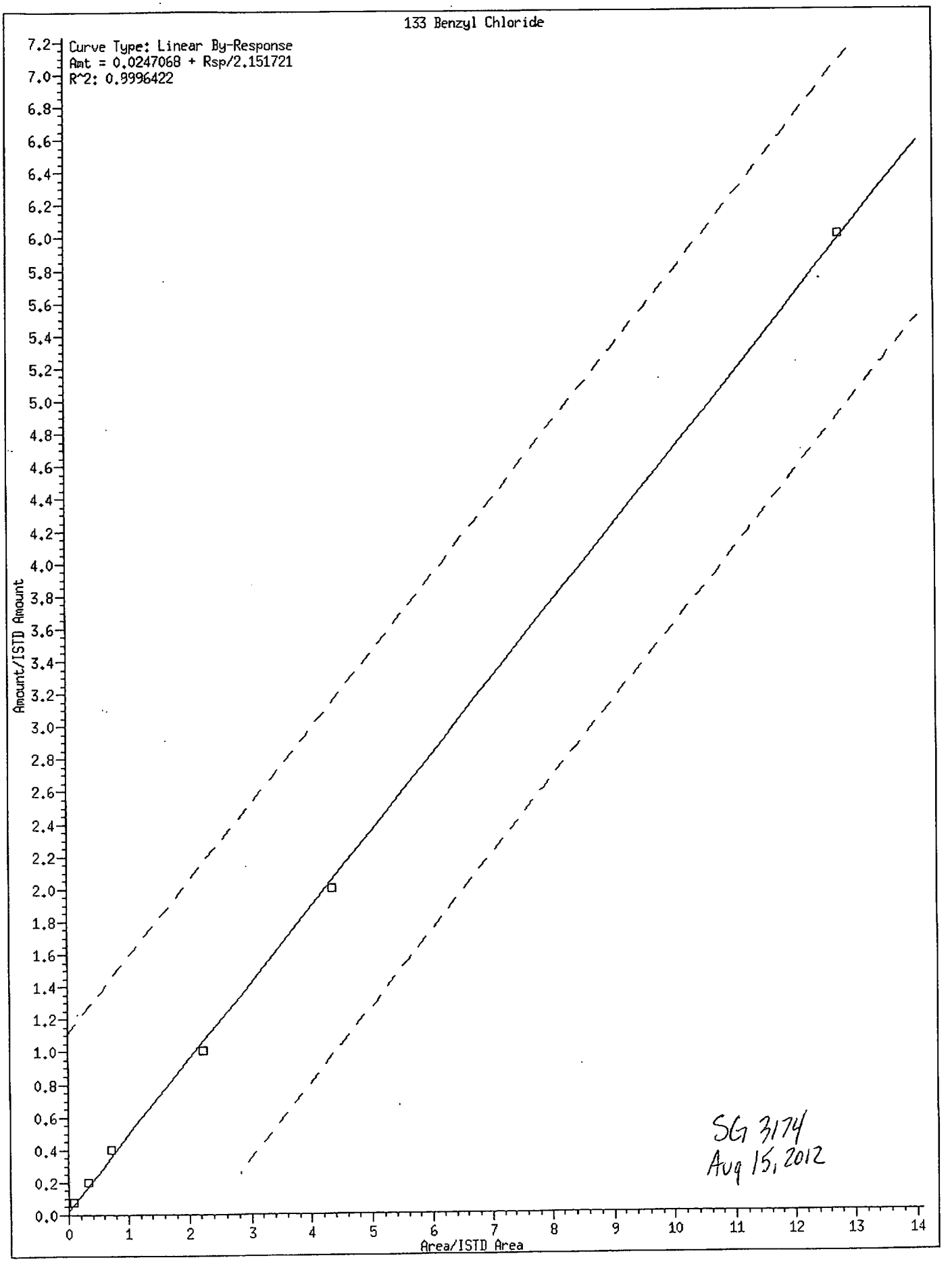
Average %RSD 9

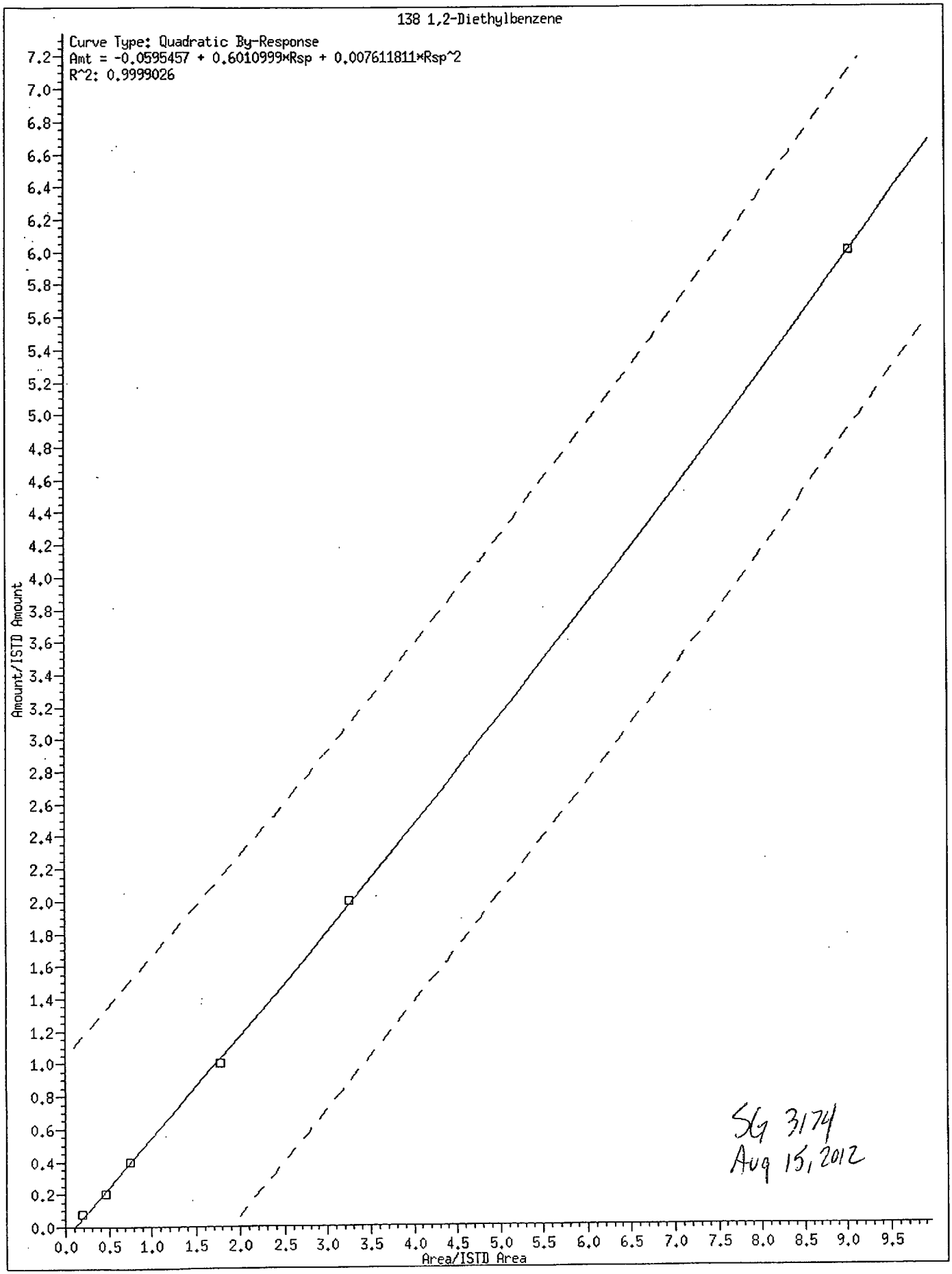
Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%


71 n-Butanol
Curve Type: Quadratic By-Response
Amt = 0.2407174 + 2.77197*Rsp + 0.03900106*Rsp^2
R^2: 0.9993551
Amount/ISTD Amount
Area/ISTD Area
SG 3174
Aug 17, 2012


96 Dibromochloromethane
Curve Type: Linear By-Response
Amt = 0.0034895 + Rsp/0.365064
R^2: 0.9998077
Amount/ISTD Amount
Area/ISTD Area
SG 3174
Aug 15, 2012


110 Bromoform
Curve Type: Linear By-Response
Amt = 0.036371 + Rsp/0.2792355
R^2: 0.9999104
Amount/ISTD Amount
Area/ISTD Area
SG 3174
Aug 15, 2012


133 Benzyl Chloride
Curve Type: Linear By-Response
Amt = 0.0247068 + Rsp/2.151721
R^2: 0.9996422
Amount/ISTD Amount
Area/ISTD Area
SG 3174
Aug 15, 2012


138 1,2-Diethylbenzene
Curve Type: Quadratic By-Response
Amt = -0.0595457 + 0.6010999*Rsp + 0.007611811*Rsp^2
R^2: 0.9999026
Amount/ISTD Amount
Area/ISTD Area
0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2 4.4 4.6 4.8 5.0 5.2 5.4 5.6 5.8 6.0 6.2 6.4 6.6 6.8 7.0 7.2
0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5
SG 3174
Aug 15, 2012

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP07159.i/12aug15a.b/ng15i08.d VSTD300
/chem/HP07159.i/12aug15a.b/ng15i09.d VSTD100
/chem/HP07159.i/12aug15a.b/ng15i03.d VSTD050
/chem/HP07159.i/12aug15a.b/ng15i04.d VSTD020
/chem/HP07159.i/12aug15a.b/ng15i10.d VSTD010
/chem/HP07159.i/12aug15a.b/ng15i06.d VSTD004
/chem/HP07159.i/12aug15a.b/ng15i07.d VSTD001

Area Summary

File ID:

Internal Standard Name	ng15i08.d	ng15i09.d	ng15i03.d	ng15i04.d	ng15i10.d	ng15i06.d	ng15i07.d	Avg. Area	%RS
t-Butyl Alcohol-d10	373652	403539	402809	377056	374335	352356	368544	378899	5
Fluorobenzene	1518971	1515397	1495760	1495429	1467854	1473777	1494775	1494566	1
Chlorobenzene-d5	1067454	1045923	1031045	1012774	1023982	1095636	1064322	1048734	3
1,4-Dichlorobenzene-d4	580637	584303	575556	576736	569627	575820	572672	576479	1

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ng15i08.d	ng15i09.d	ng15i03.d	ng15i04.d	ng15i10.d	ng15i06.d	ng15i07.d	Avg. RT
t-Butyl Alcohol-d10	4.179	4.170	4.179	4.188	4.181	4.197	4.204	4.185
Fluorobenzene	7.653	7.656	7.659	7.667	7.655	7.664	7.665	7.660
Chlorobenzene-d5	11.127	11.130	11.133	11.135	11.135	11.138	11.139	11.134
1,4-Dichlorobenzene-d4	13.000	13.003	13.006	13.009	13.008	13.018	13.025	13.010

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 08/17/2012 at 15:09.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 08/15/12 Time: 16:34

Lab File ID: ng15v01.d Init. Calib. Date(s): 08/15/12 08/15/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Dichlorodifluoromethane	0.3288	0.2404	14.62	20	-27	
#	Chloromethane	0.2927	0.2375	16.22	20	-19	#
*	Vinyl Chloride	0.2963	0.2515	16.98	20	-15	*
	Bromomethane	0.1793	0.1014	11.31	20	-43	
	Chloroethane	0.1517	0.0913	12.04	20	-40	
	Trichlorofluoromethane	0.3295	0.3010	18.27	20	-9	
	Ethanol	0.0982	0.1233	627.53	500	26	
	Acrolein	1.6927	1.4895	132.00	150	-12	
*	1,1-Dichloroethene	0.2034	0.2186	21.49	20	7	*
	Freon 113	0.2067	0.2020	19.54	20	-2	
	Acetone	0.0420	0.0480	171.74	150	14	
	Methyl Iodide	0.3595	0.3738	20.79	20	4	
	2-Propanol	0.7246	0.6801	140.81	150	-6	
	Carbon Disulfide	0.6878	0.6791	19.75	20	-1	
	Methyl Acetate	0.3065	0.2545	16.61	20	-17	
	Allyl Chloride	0.4295	0.4032	18.77	20	-6	
	Methylene Chloride	0.2590	0.2642	20.40	20	2	
	t-Butyl Alcohol	1.2041	1.0972	182.25	200	-9	
	Acrylonitrile	0.1527	0.1524	99.84	100	0	
	trans-1,2-Dichloroethene	0.2343	0.2478	21.15	20	6	
	Methyl Tertiary Butyl Ether	0.8223	0.8340	20.29	20	1	
	n-Hexane	0.3136	0.2985	19.04	20	-5	
	1,2-Dichloroethene (total)	0.2511	0.2642	42.10	40	5	
#	1,1-Dichloroethane	0.4470	0.4684	20.96	20	5	#
	di-Isopropyl Ether	0.8354	0.8461	20.26	20	1	
	2-Chloro-1,3-Butadiene	0.3584	0.3563	19.88	20	-1	
	Ethyl t-Butyl Ether	0.8172	0.8333	20.40	20	2	
	cis-1,2-Dichloroethene	0.2679	0.2806	20.94	20	5	
	2-Butanone	0.1980	0.2094	158.65	150	6	
	2,2-Dichloropropane	0.3232	0.3328	20.59	20	3	
	Propionitrile	1.2728	1.0846	127.83	150	-15	
	Methacrylonitrile	0.1701	0.1683	148.46	150	-1	
	Bromochloromethane	0.1375	0.1319	19.19	20	-4	
	Tetrahydrofuran	1.1734	1.1070	94.34	100	-6	
*	Chloroform	0.4217	0.4100	19.45	20	-3	*
	1,1,1-Trichloroethane	0.3469	0.3585	20.67	20	3	

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 08/15/12 Time: 16:34

Lab File ID: ng15v01.d Init. Calib. Date(s): 08/15/12 08/15/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Cyclohexane	0.4340	0.4232	19.50	20	-2	
	1,1-Dichloropropene	0.3571	0.3384	18.95	20	-5	
	Carbon Tetrachloride	0.2542	0.2554	20.09	20	0	
	Isobutyl Alcohol	0.3825	0.3438	449.32	500	-10	
	Benzene	1.0271	1.0630	20.70	20	3	
	1,2-Dichloroethane	0.3253	0.3361	20.66	20	3	
	t-Amyl Methyl Ether	0.7889	0.7916	20.07	20	0	
	n-Heptane	0.2983	0.2641	17.70	20	-11	
	n-Butanol	0.2993	0.3009	908.29	1000	-9	
	Trichloroethene	0.2541	0.2634	20.73	20	4	
	Methylcyclohexane	0.4218	0.3968	18.81	20	-6	
*	1,2-Dichloropropane	0.2841	0.2909	20.48	20	2	*
	Methyl Methacrylate	0.2869	0.2679	18.68	20	-7	
	Dibromomethane	0.1719	0.1745	20.30	20	1	
	1,4-Dioxane	0.0929	0.1000	538.06	500	8	
	Bromodichloromethane	0.2865	0.2891	20.18	20	1	
	2-Nitropropane	1.6707	1.3196	15.80	20	-21	
	2-Chloroethyl Vinyl Ether	0.1937	0.1805	18.64	20	-7	
	cis-1,3-Dichloropropene	0.4141	0.4482	21.65	20	8	
	4-Methyl-2-Pentanone	0.4265	0.4302	100.85	100	1	
*	Toluene	0.9475	0.9826	20.74	20	4	*
	trans-1,3-Dichloropropene	0.5612	0.5762	20.53	20	3	
	Ethyl Methacrylate	0.6862	0.6716	19.58	20	-2	
	1,1,2-Trichloroethane	0.3744	0.3791	20.25	20	1	
	Tetrachloroethene	0.3615	0.3792	20.98	20	5	
	1,3-Dichloropropane	0.6504	0.6724	20.68	20	3	
	2-Hexanone	0.4510	0.4826	107.02	100	7	
	Dibromochloromethane	0.3192	0.3358	18.57	20	-7	
	1,2-Dibromoethane	0.3888	0.4036	20.76	20	4	
#	Chlorobenzene	1.0473	1.0713	20.46	20	2	#
	1,1,1,2-Tetrachloroethane	0.3250	0.3283	20.20	20	1	
*	Ethylbenzene	1.7342	1.7553	20.24	20	1	*
	m+p-Xylene	0.7041	0.7170	40.73	40	2	
	Xylene (Total)	0.7000	0.4858	60.89	60	1	
	o-Xylene	0.6918	0.6974	20.16	20	1	
	Styrene	1.1567	1.1668	20.17	20	1	

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 08/15/12 Time: 16:34

Lab File ID: ng15v01.d Init. Calib. Date(s): 08/15/12 08/15/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	Bromoform	0.2415	0.2141	17.15	20	-14	#
	Isopropylbenzene	1.7107	1.7345	20.28	20	1	
	Cyclohexanone	0.3760	0.4384	582.99	500	17	
#	1,1,2,2-Tetrachloroethane	1.1477	1.1154	19.44	20	-3	#
	trans-1,4-Dichloro-2-Butene	0.2847	0.2806	98.55	100	-1	
	Bromobenzene	0.8036	0.7830	19.49	20	-3	
	1,2,3-Trichloropropane	0.3211	0.3093	19.26	20	-4	
	n-Propylbenzene	3.5464	3.5341	19.93	20	0	
	2-Chlorotoluene	0.7544	0.7326	19.42	20	-3	
	1,3,5-Trimethylbenzene	2.6329	2.5684	19.51	20	-2	
	4-Chlorotoluene	0.8251	0.8067	19.56	20	-2	
	tert-Butylbenzene	0.5752	0.5626	19.56	20	-2	
	Pentachloroethane	0.4605	0.4144	18.00	20	-10	
	1,2,4-Trimethylbenzene	2.6697	2.6210	19.64	20	-2	
	sec-Butylbenzene	3.1004	3.0156	19.45	20	-3	
	p-Isopropyltoluene	2.6378	2.6472	20.07	20	0	
	1,3-Dichlorobenzene	1.3556	1.3682	20.19	20	1	
	1,4-Dichlorobenzene	1.7159	1.6367	19.08	20	-5	
	1,2,3-Trimethylbenzene	2.8610	2.7561	19.27	20	-4	
	Benzyl Chloride	1.8263	1.6463	16.54	20	-17	
	n-Butylbenzene	1.3913	1.3653	19.63	20	-2	
	1,2-Dichlorobenzene	1.5558	1.5226	19.57	20	-2	
	1,3-Diethylbenzene	1.6300	1.5392	18.89	20	-6	
	1,4-Diethylbenzene	1.5567	1.4920	19.17	20	-4	
	1,2-Diethylbenzene	1.9101	1.7952	18.80	20	-6	
	1,2-Dibromo-3-Chloropropane	0.2627	0.2321	17.67	20	-12	
	1,2,4-Trichlorobenzene	1.0647	1.0488	19.70	20	-1	
	Hexachlorobutadiene	0.3697	0.3505	18.96	20	-5	
	Naphthalene	3.9790	3.7268	18.73	20	-6	
	1,2,3-Trichlorobenzene	1.0686	1.0310	19.30	20	-4	
	2-Methylnaphthalene	2.3330	2.0620	17.68	20	-12	

Average %Drift 6

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 09/05/12 Time: 12:18

Lab File ID: ns05c01.d Init. Calib. Date(s): 08/15/12 08/15/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Dichlorodifluoromethane	0.3288	0.3273	49.78	50	0	
#	Chloromethane	0.2927	0.2706	46.22	50	-8	#
*	Vinyl Chloride	0.2963	0.2821	47.60	50	-5	*
	Bromomethane	0.1793	0.1805	50.32	50	1	
	Chloroethane	0.1517	0.1533	50.52	50	1	
	Trichlorofluoromethane	0.3295	0.3448	52.32	50	5	
	Ethanol	0.0982	0.0907	1154.53	1250	-8	
	Acrolein	1.6927	1.7233	509.05	500	2	
*	1,1-Dichloroethene	0.2034	0.2202	54.12	50	8	*
	Freon 113	0.2067	0.2256	54.56	50	9	
	Acetone	0.0420	0.0462	110.00	100	10	
	Methyl Iodide	0.3595	0.4029	56.04	50	12	
	2-Propanol	0.7246	0.6836	235.87	250	-6	
	Carbon Disulfide	0.6878	0.7713	56.07	50	12	
	Methyl Acetate	0.3065	0.2924	47.71	50	-5	
	Allyl Chloride	0.4295	0.4119	47.95	50	-4	
	Methylene Chloride	0.2590	0.2641	50.98	50	2	
	t-Butyl Alcohol	1.2041	1.0892	226.14	250	-10	
	Acrylonitrile	0.1527	0.1575	51.57	50	3	
	trans-1,2-Dichloroethene	0.2343	0.2521	53.82	50	8	
	Methyl Tertiary Butyl Ether	0.8223	0.8421	51.21	50	2	
	n-Hexane	0.3136	0.3557	56.72	50	13	
	1,2-Dichloroethene (total)	0.2511	0.2636	105.15	100	5	
#	1,1-Dichloroethane	0.4470	0.4722	52.81	50	6	#
	di-Isopropyl Ether	0.8354	0.8744	52.33	50	5	
	2-Chloro-1,3-Butadiene	0.3584	0.3604	50.28	50	1	
	Ethyl t-Butyl Ether	0.8172	0.8216	50.27	50	1	
	cis-1,2-Dichloroethene	0.2679	0.2751	51.33	50	3	
	2-Butanone	0.1980	0.2099	105.98	100	6	
	2,2-Dichloropropane	0.3232	0.3401	52.62	50	5	
	Propionitrile	1.2728	1.1416	224.23	250	-10	
	Methacrylonitrile	0.1701	0.1600	117.57	125	-6	
	Bromochloromethane	0.1375	0.1413	51.39	50	3	
	Tetrahydrofuran	1.1734	1.2401	105.69	100	6	
*	Chloroform	0.4217	0.4270	50.63	50	1	*
	1,1,1-Trichloroethane	0.3469	0.3434	49.49	50	-1	

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 09/05/12 Time: 12:18

Lab File ID: ns05c01.d Init. Calib. Date(s): 08/15/12 08/15/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Cyclohexane	0.4340	0.4537	52.27	50	5	
	Cyclohexane(mz 84)	0.3614	0.3726	51.55	50	3	
	Cyclohexane(mz 69)	0.1359	0.1380	50.79	50	2	
	1,1-Dichloropropene	0.3571	0.3496	48.95	50	-2	
	Carbon Tetrachloride	0.2542	0.2904	57.12	50	14	
	Isobutyl Alcohol	0.3825	0.3690	602.83	625	-4	
	Benzene	1.0271	1.0561	51.41	50	3	
	1,2-Dichloroethane	0.3253	0.3441	52.89	50	6	
	1,2-Dichloroethane(mz 98)	0.0336	0.0349	51.94	50	4	
	t-Amyl Methyl Ether	0.7889	0.7907	50.11	50	0	
	n-Heptane	0.2983	0.3037	50.89	50	2	
	n-Butanol	0.2993	0.3099	1157.53	1250	-7	
	Trichloroethene	0.2541	0.2602	51.21	50	2	
	Methylcyclohexane	0.4218	0.4034	47.81	50	-4	
*	1,2-Dichloropropane	0.2841	0.2956	52.02	50	4	*
	Methyl Methacrylate	0.2869	0.2720	47.41	50	-5	
	Dibromomethane	0.1719	0.1789	52.02	50	4	
	1,4-Dioxane	0.0929	0.1039	699.00	625	12	
	Bromodichloromethane	0.2865	0.3209	56.01	50	12	
	2-Nitropropane	1.6707	2.1902	131.09	100	31	
	2-Chloroethyl Vinyl Ether	0.1937	0.1984	51.22	50	2	
	cis-1,3-Dichloropropene	0.4141	0.4293	51.84	50	4	
	4-Methyl-2-Pentanone	0.4265	0.4608	108.04	100	8	
*	Toluene	0.9475	0.9548	50.39	50	1	*
	trans-1,3-Dichloropropene	0.5612	0.5847	52.09	50	4	
	Ethyl Methacrylate	0.6862	0.6351	46.28	50	-7	
	1,1,2-Trichloroethane	0.3744	0.3775	50.42	50	1	
	Tetrachloroethene	0.3615	0.4028	55.71	50	11	
	1,3-Dichloropropane	0.6504	0.6617	50.86	50	2	
	2-Hexanone	0.4510	0.4929	109.29	100	9	
	Dibromochloromethane	0.3192	0.3884	53.37	50	7	
	1,2-Dibromoethane	0.3888	0.4032	51.86	50	4	
#	Chlorobenzene	1.0473	1.0762	51.38	50	3	#
	1,1,1,2-Tetrachloroethane	0.3250	0.3537	54.41	50	9	
*	Ethylbenzene	1.7342	1.7557	50.62	50	1	*
	m+p-Xylene	0.7041	0.7143	101.45	100	1	

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 09/05/12 Time: 12:18

Lab File ID: ns05c01.d Init. Calib. Date(s): 08/15/12 08/15/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Xylene (Total)	0.7000	0.7077	151.64	150	1	
	o-Xylene	0.6918	0.6944	50.19	50	0	
	Styrene	1.1567	1.1699	50.57	50	1	
#	Bromoform	0.2415	0.2993	55.41	50	11	#
	Isopropylbenzene	1.7107	1.7357	50.73	50	1	
	Cyclohexanone	0.3760	0.2841	472.15	625	-24	
#	1,1,2,2-Tetrachloroethane	1.1477	1.0327	44.99	50	-10	#
	trans-1,4-Dichloro-2-Butene	0.2847	0.2627	115.34	125	-8	
	Bromobenzene	0.8036	0.7882	49.04	50	-2	
	1,2,3-Trichloropropane	0.3211	0.2921	45.48	50	-9	
	n-Propylbenzene	3.5464	3.4017	47.96	50	-4	
	2-Chlorotoluene	0.7544	0.7086	46.97	50	-6	
	1,3,5-Trimethylbenzene	2.6329	2.4718	46.94	50	-6	
	4-Chlorotoluene	0.8251	0.7766	47.06	50	-6	
	tert-Butylbenzene	0.5752	0.5594	48.63	50	-3	
	Pentachloroethane	0.4605	0.4770	51.79	50	4	
	1,2,4-Trimethylbenzene	2.6697	2.5808	48.34	50	-3	
	sec-Butylbenzene	3.1004	2.9584	47.71	50	-5	
	p-Isopropyltoluene	2.6378	2.6200	49.66	50	-1	
	1,3-Dichlorobenzene	1.3556	1.3983	51.58	50	3	
	1,4-Dichlorobenzene	1.7159	1.5812	46.08	50	-8	
	1,2,3-Trimethylbenzene	2.8610	2.6872	46.96	50	-6	
	Benzyl Chloride	1.8263	1.8246	43.63	50	-13	
	n-Butylbenzene	1.3913	1.3171	47.34	50	-5	
	1,2-Dichlorobenzene	1.5558	1.4617	46.98	50	-6	
	1,3-Diethylbenzene	1.6300	1.5491	47.52	50	-5	
	1,4-Diethylbenzene	1.5567	1.4564	46.78	50	-6	
	1,2-Diethylbenzene	1.9101	1.5753	45.31	50	-9	
	1,2-Dibromo-3-Chloropropane	0.2627	0.2273	43.26	50	-13	
	1,2,4-Trichlorobenzene	1.0647	0.9982	46.88	50	-6	
	Hexachlorobutadiene	0.3697	0.3746	50.66	50	1	
	Naphthalene	3.9790	3.5331	44.40	50	-11	
	1,2,3-Trichlorobenzene	1.0686	1.0033	46.94	50	-6	
	2-Methylnaphthalene	2.3330	1.8848	40.39	50	-19	
	Dibromofluoromethane	0.2235	0.2308	51.63	50	3	

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 09/05/12 Time: 12:18

Lab File ID: ns05c01.d Init. Calib. Date(s): 08/15/12 08/15/12

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: DB-624 ID: .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dibromofluoromethane(mz111)	0.2283	0.2352	51.51	50	3
Toluene-d8(mz100)	0.9356	0.9449	50.50	50	1
1,2-Dichloroethane-d4	0.0598	0.0599	50.09	50	0
1,2-Dichloroethane-d4(mz104)	0.0380	0.0389	51.30	50	3
1,2-Dichloroethane-d4(mz65)	0.2626	0.2637	50.20	50	0
Toluene-d8	1.3989	1.4142	50.55	50	1
4-Bromofluorobenzene	0.5086	0.5131	50.44	50	1
4-Bromofluorobenzene(mz174)	0.3983	0.4391	55.12	50	10

Average %Drift 6

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem/HP07159.i/12aug15a.b/ng15i07.d
/chem/HP07159.i/12aug15a.b/ng15i06.d
/chem/HP07159.i/12aug15a.b/ng15i10.d
/chem/HP07159.i/12aug15a.b/ng15i04.d
/chem/HP07159.i/12aug15a.b/ng15i03.d
/chem/HP07159.i/12aug15a.b/ng15i09.d
/chem/HP07159.i/12aug15a.b/ng15i08.d

File /chem/HP07159.i/12aug15a.b/ng15i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem/HP07159.i/12sep05b.b/ns05c01.d

RT Summary

File ID:

Internal Standard Name	ns05c01.d	ICAL RT	In Spec
t-Butyl Alcohol-d10	4.237	4.179	Yes
Fluorobenzene	7.711	7.659	Yes
Chlorobenzene-d5	11.166	11.133	Yes
1,4-Dichlorobenzene-d4	13.028	13.006	Yes

A "No" indicates the retention time is greater than 30 seconds from the referenced ICAL standard.

Area Summary

File ID:

Internal Standard Name	ns05c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl Alcohol-d10	379512	402809	201404	805618	Yes
Fluorobenzene	1511702	1495760	747880	2991520	Yes
Chlorobenzene-d5	1061639	1031045	515522	2062090	Yes
1,4-Dichlorobenzene-d4	629939	575556	287778	1151112	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 09/05/2012 at 13:42

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_PTL09___

Lab File ID (Standard): ns05c01.d Date Analyzed: 09/05/12

Instrument ID: HP07159 Time Analyzed: 12:18

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

		IS1(FBZ)		IS2(CBZ)		IS3(DCB)		IS4(TBA)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1511702	7.711	1061639	11.166	629939	13.028	379512	4.237
	UPPER LIMIT	3023404	8.211	2123278	11.666	1259878	13.528	759024	4.737
	LOWER LIMIT	755851	7.211	530820	10.666	314970	12.528	189756	3.737
	LAB SAMPLE ID								
01	VBLKN08	1488774	7.716	1071249	11.177	606855	13.057	362023	4.260
02	LCSN08	1472353	7.708	1021474	11.164	603754	13.037	372042	4.247
03	6769183	1517353	7.713	1090123	11.175	616390	13.060	360404	4.252
04	6769184	1478279	7.716	1055396	11.178	591365	13.064	349191	4.255
05	6769185	1460843	7.714	1044569	11.181	588743	13.061	343242	4.252
06	6769186	1435372	7.719	1039166	11.180	583185	13.060	330143	4.257
07	6769187	1421023	7.715	1028312	11.182	574669	13.062	336169	4.259
08	6769188	1416412	7.718	1022092	11.179	576032	13.059	322974	4.256
09	6769189	1408724	7.715	1010000	11.177	572869	13.062	322075	4.254
10	6769190	1406331	7.717	1017100	11.178	566604	13.064	319483	4.255
11	6769191	1348910	7.714	959829	11.176	553149	13.061	308424	4.265
12	6769192	1362114	7.713	979637	11.181	555730	13.061	301894	4.258
13	6769193	1343036	7.714	980562	11.181	549973	13.061	318279	4.246
14	6769194	1357166	7.720	975949	11.176	551586	13.062	306792	4.259
15	6769195	1343678	7.720	970756	11.181	547559	13.061	313460	4.258
16	6769196MS	1346092	7.709	933556	11.165	555973	13.032	332915	4.236
17	6769197MSD	1374043	7.708	946971	11.170	566539	13.037	331321	4.241
18	6769198	1392400	7.714	978369	11.176	560783	13.061	331249	4.259
19	6769199	1358923	7.714	988347	11.181	553141	13.061	308232	4.258
20	6769200	1367064	7.715	978395	11.176	552601	13.062	315175	4.259
21	6769201	1341635	7.719	970602	11.180	545082	13.066	303157	4.251
22	6769202	1343545	7.714	967250	11.182	542832	13.062	301102	4.259

IS1 (FBZ)=Fluorobenzene
IS2 (CBZ)=Chlorobenzene-d5
IS3 (DCB)=1,4-Dichlorobenzene-d4
IS4 (TBA)=t-Butyl Alcohol-d10

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_PTL09___

Lab File ID (Standard): ns05c01.d Date Analyzed: 09/05/12

Instrument ID: HP07159 Time Analyzed: 12:18

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(FBZ) AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #	IS4(TBA) AREA #	RT #
12 HOUR STD	1511702	7.711	1061639	11.166	629939	13.028	379512	4.237
UPPER LIMIT	3023404	8.211	2123278	11.666	1259878	13.528	759024	4.737
LOWER LIMIT	755851	7.211	530820	10.666	314970	12.528	189756	3.737
LAB SAMPLE ID								
23 6769203	1309650	7.717	946375	11.178	534443	13.064	308957	4.256
24 6769204	1307010	7.716	926400	11.178	529556	13.064	304596	4.255

IS1 (FBZ)=Fluorobenzene
IS2 (CBZ)=Chlorobenzene-d5
IS3 (DCB)=1,4-Dichlorobenzene-d4
IS4 (TBA)=t-Butyl Alcohol-d10

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

Sample Data

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LOQ/MDL Summary
GC/MS Volatiles

SDG: PTL09

Fraction: Volatiles by GC/MS

10903: Volatiles by 8260 Analyte Name	Default MDL	Default LOQ	Units
Dichlorodifluoromethane	2	5	ug/l
Chloromethane	1	5	ug/l
Vinyl Chloride	1	5	ug/l
Bromomethane	1	5	ug/l
Chloroethane	1	5	ug/l
Trichlorofluoromethane	2	5	ug/l
1,1-Dichloroethene	0.8	5	ug/l
Acetone	6	20	ug/l
Methylene Chloride	2	5	ug/l
trans-1,2-Dichloroethene	0.8	5	ug/l
Methyl Tertiary Butyl Ether	0.5	5	ug/l
1,1-Dichloroethane	1	5	ug/l
2-Butanone	3	10	ug/l
cis-1,2-Dichloroethene	0.8	5	ug/l
2,2-Dichloropropane	1	5	ug/l
Bromochloromethane	1	5	ug/l
Chloroform	0.8	5	ug/l
1,1,1-Trichloroethane	0.8	5	ug/l
1,1-Dichloropropene	1	5	ug/l
Carbon Tetrachloride	1	5	ug/l
Benzene	0.5	5	ug/l
1,2-Dichloroethane	1	5	ug/l
Trichloroethene	1	5	ug/l
1,2-Dichloropropane	1	5	ug/l
Dibromomethane	1	5	ug/l
Bromodichloromethane	1	5	ug/l
cis-1,3-Dichloropropene	1	5	ug/l
4-Methyl-2-pentanone	3	10	ug/l
Toluene	0.7	5	ug/l
trans-1,3-Dichloropropene	1	5	ug/l
1,1,2-Trichloroethane	0.8	5	ug/l
Tetrachloroethene	0.8	5	ug/l
1,3-Dichloropropane	1	5	ug/l
Dibromochloromethane	1	5	ug/l
1,2-Dibromoethane	1	5	ug/l
Chlorobenzene	0.8	5	ug/l
1,1,1,2-Tetrachloroethane	1	5	ug/l
Ethylbenzene	0.8	5	ug/l
m+p-Xylene	0.8	5	ug/l
o-Xylene	0.8	5	ug/l
Styrene	1	5	ug/l
Bromoform	1	5	ug/l
Isopropylbenzene	1	5	ug/l
Bromobenzene	1	5	ug/l
1,1,2,2-Tetrachloroethane	1	5	ug/l
1,2,3-Trichloropropane	1	5	ug/l
n-Propylbenzene	1	5	ug/l

Fraction: Volatiles by GC/MS

10903: Volatiles by 8260 Analyte Name	Default MDL	Default LOQ	Units
2-Chlorotoluene	1	5	ug/l
1,3,5-Trimethylbenzene	1	5	ug/l
4-Chlorotoluene	1	5	ug/l
tert-Butylbenzene	1	5	ug/l
1,2,4-Trimethylbenzene	1	5	ug/l
sec-Butylbenzene	1	5	ug/l
1,3-Dichlorobenzene	1	5	ug/l
p-Isopropyltoluene	1	5	ug/l
1,4-Dichlorobenzene	1	5	ug/l
n-Butylbenzene	1	5	ug/l
1,2-Dichlorobenzene	1	5	ug/l
1,2-Dibromo-3-chloropropane	2	5	ug/l
1,2,4-Trichlorobenzene	1	5	ug/l
Hexachlorobutadiene	2	5	ug/l
Naphthalene	1	5	ug/l
1,2,3-Trichlorobenzene	1	5	ug/l

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-T

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769183

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s32.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	20	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	10	U
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-T

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769183

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s32.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-86-1	Bromobenzene		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-T

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769183

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s32.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT-T

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6769183

Data file: /chem/HP07159.i/12sep05b.b/ns05s32.d
Injection date and time: **05-SEP-2012 13:48**
Data file Sample Info. Line: PAT-T;6769183;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 17:07 ers02237

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.252	(-0.014)	438	65	360404	(-5)	250.00	
70) Fluorobenzene	7.713	(-0.002)	1007	96	1517353	(0)	50.00	
98) Chlorobenzene-d5	11.175	(-0.008)	1576	117	1090123	(3)	50.00	
130) 1,4-Dichlorobenzene-d4	13.061	(-0.033)	1886	152	616390	(-2)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.795	(-0.001)	113	341920	50.411	101%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.251	(0.000)	102	92308	50.883	102%		77 - 113
86) Toluene-d8	(2)	9.733	(0.000)	98	1456837	47.766	96%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.178	(-0.001)	95	523870	47.243	94%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)				Not Detected					0.8	5
19) Acetone	(1)				Not Detected					6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)				Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)				Not Detected					3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

Digitally signed by Emily R. Styer on 09/05/2012 at 17:17. Target 3.5 esignature user ID: ers02237

PAT-T

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769183

Data file: /chem/HP07159.i/12sep05b.b/ns05s32.d Injection date and time: **05-SEP-2012 13:48**
Data file Sample Info. Line: PAT-T;6769183;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 17:07 ers02237

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

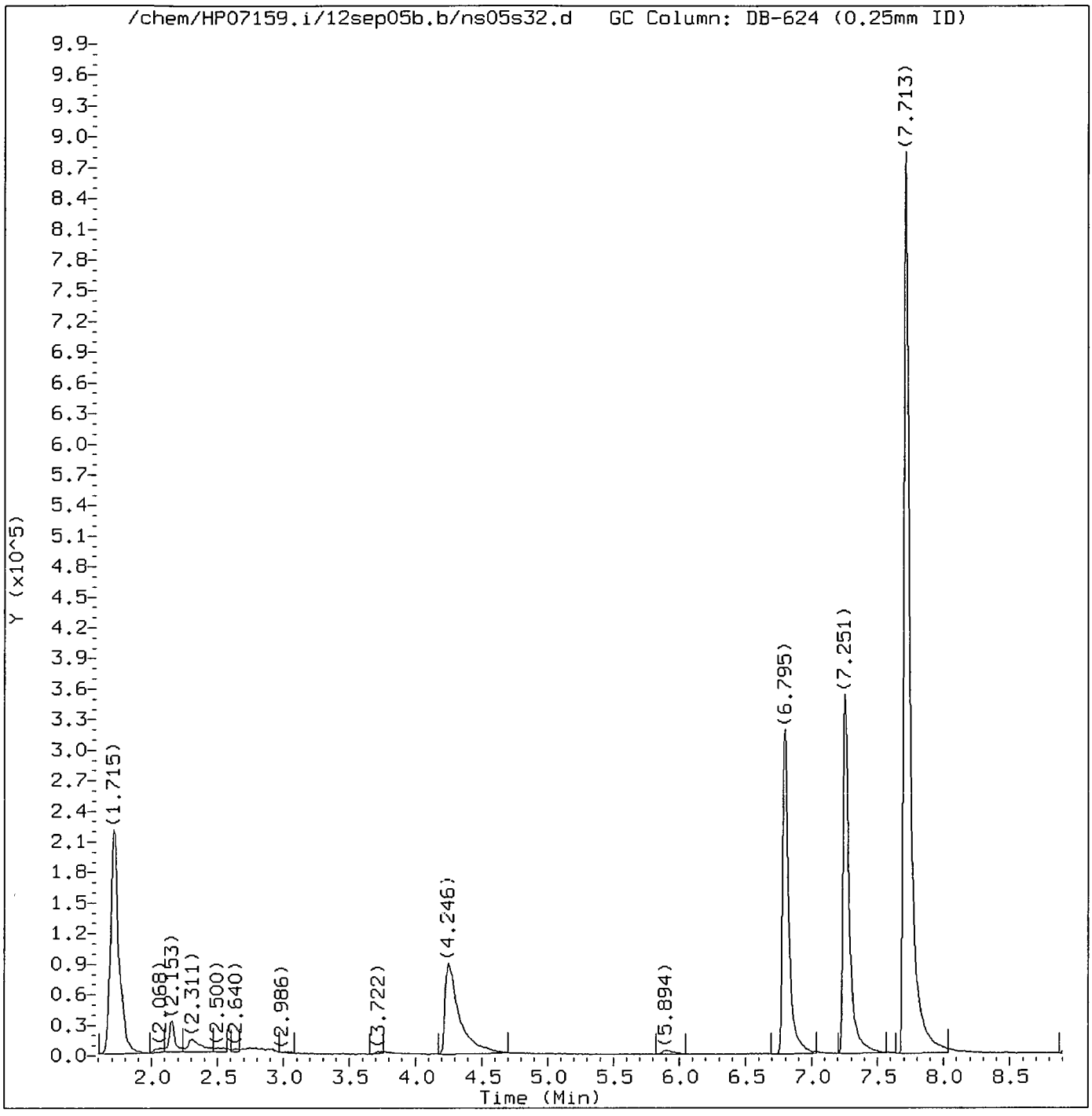
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Emily R. Styer on 09/05/2012 at 17:17. Target 3.5 esignature user ID: ers02237

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

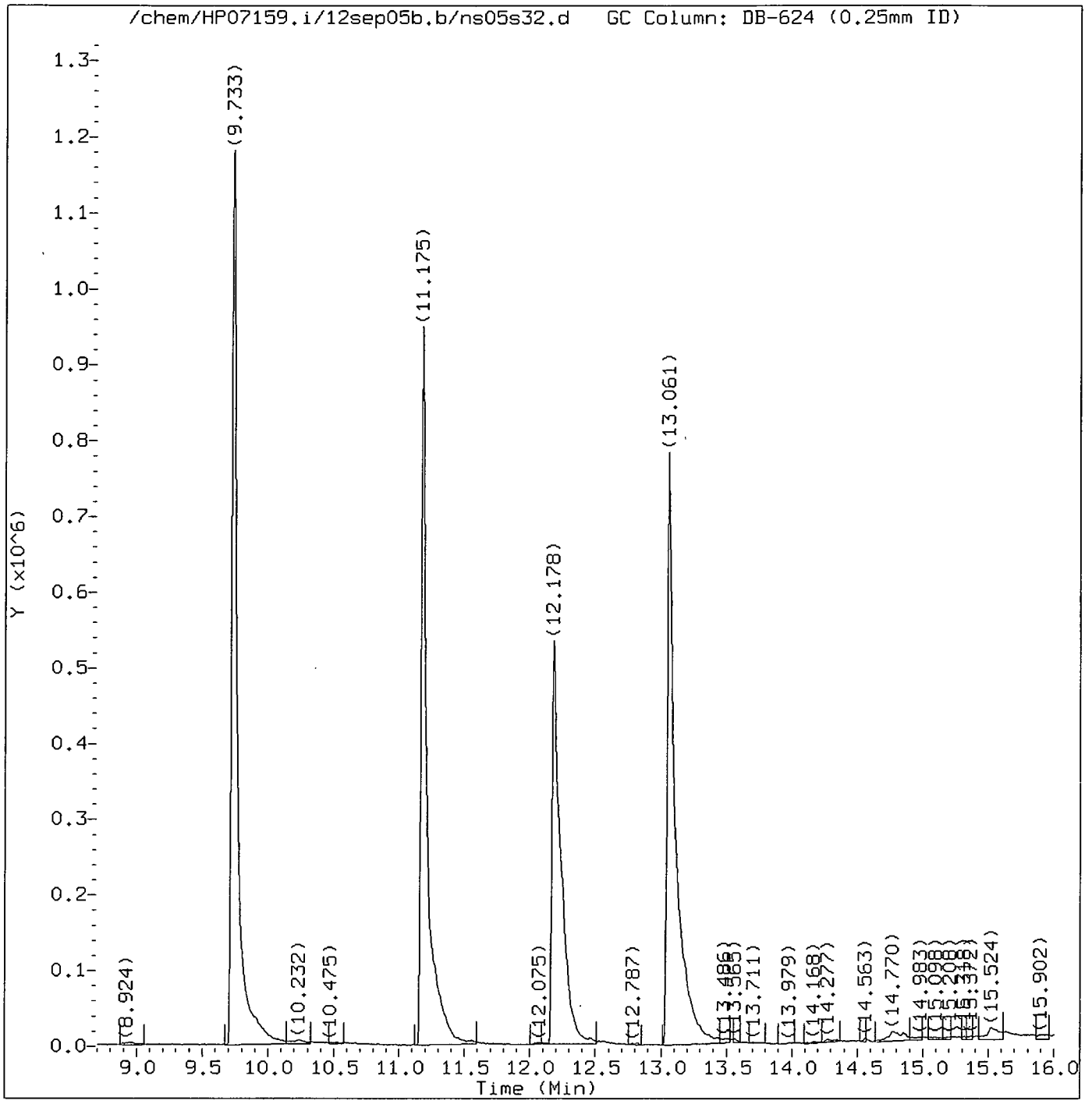
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s32.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 13:48 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:07 ers02237

Sample Name: PAT-T Lab Sample ID: 6769183

Digitally signed by Emily R. Styer
on 09/05/2012 at 17:17.
Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s32.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 13:48 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:07 ers02237

Sample Name: PAT-T Lab Sample ID: 6769183

Digitally signed by Emily R. Styer
on 09/05/2012 at 17:17.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s32.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 13:48 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:07 ers02237

Sample Name: PAT-T Lab Sample ID: 6769183

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(4)	4.252	65	360404	250.000
51)$Dibromofluoromethane	(1)	6.795	113	341920	50.411
62)$1,2-Dichloroethane-d4	(1)	7.251	102	92308	50.883
70)*Fluorobenzene	(1)	7.713	96	1517353	50.000
86)$Toluene-d8	(2)	9.733	98	1456837	47.766
98)*Chlorobenzene-d5	(2)	11.175	117	1090123	50.000
114)$4-Bromofluorobenzene	(2)	12.178	95	523870	47.243
130)*1,4-Dichlorobenzene-d4	(3)	13.061	152	616390	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Emily R. Styer
on 09/05/2012 at 17:17.
Target 3.5 esignature user ID: ers02237

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT23

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769184

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s33.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	28	
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	13	
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT23

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769184

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s33.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-86-1	Bromobenzene		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT23

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769184

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s33.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT23

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769184

Data file: /chem/HP07159.i/12sep05b.b/ns05s33.d
Injection date and time: **05-SEP-2012 14:11**
Data file Sample Info. Line: PAT23;6769184;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:25 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.255	(-0.018)	438	65	349191	(-8)	250.00	
70) Fluorobenzene	7.716	(-0.005)	1007	96	1478279	(-2)	50.00	
98) Chlorobenzene-d5	11.178	(-0.011)	1576	117	1055396	(-1)	50.00	
130) 1,4-Dichlorobenzene-d4	13.064	(-0.036)	1886	152	591365	(-6)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.798	(-0.001)	113	339539	51.383	103%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.254	(0.000)	102	88743	50.211	100%		77 - 113
86) Toluene-d8	(2)	9.730	(0.000)	98	1408719	47.708	95%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.188	(-0.002)	95	513542	47.835	96%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)				Not Detected					0.8	5
19) Acetone	(1)	3.653	(-0.004)	58	34998	28.211	28.21			6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)				Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)	6.336	(-0.024)	43	73362MA	12.531	12.53			3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:26. Target 3.5 esignature user ID: sag03174

PAT23 Lancaster Laboratories 6769184
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/12sep05b.b/ns05s33.d Injection date and time: **05-SEP-2012 14:11**
Data file Sample Info. Line: PAT23;6769184;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:25 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

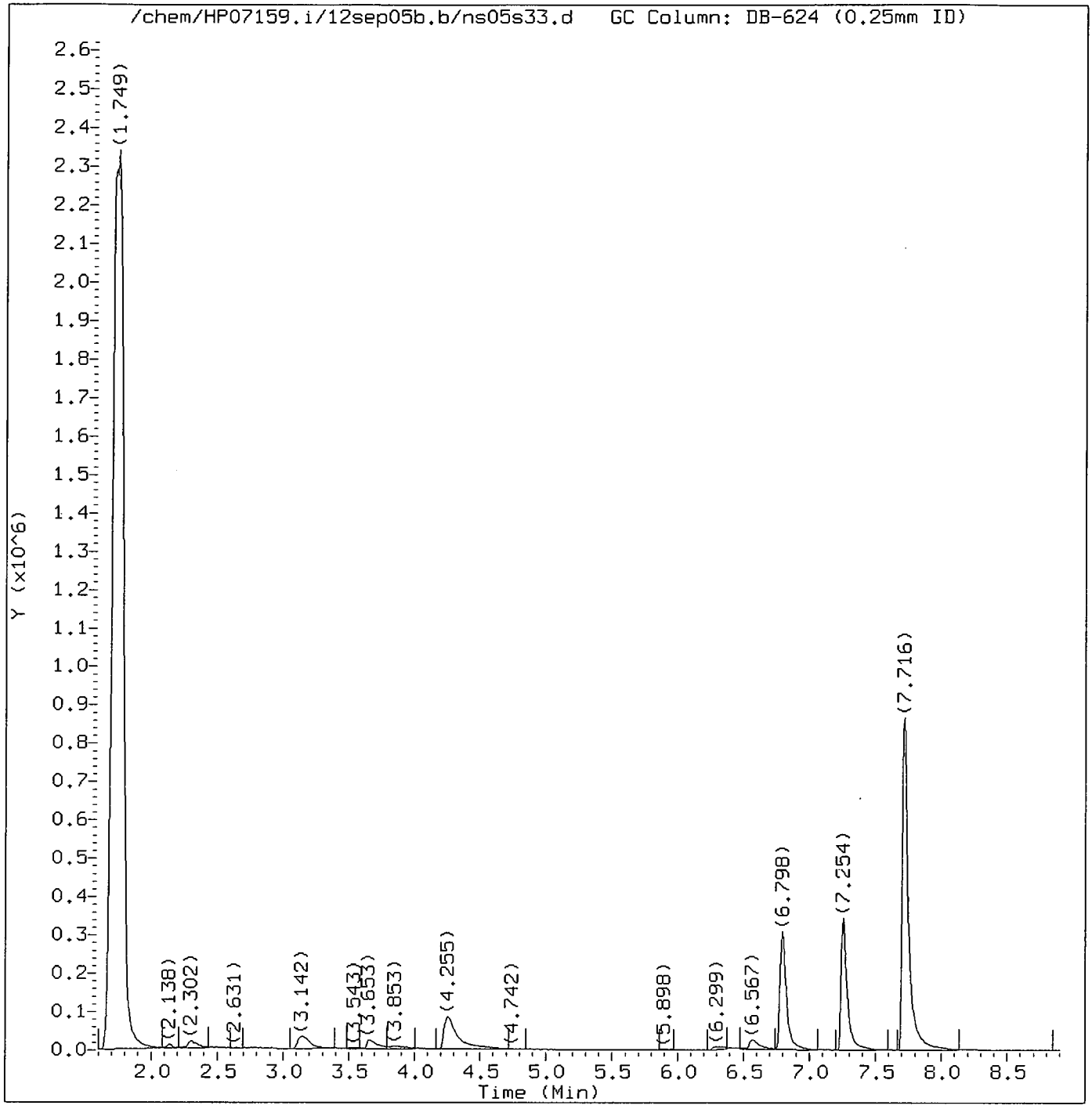
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:26. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

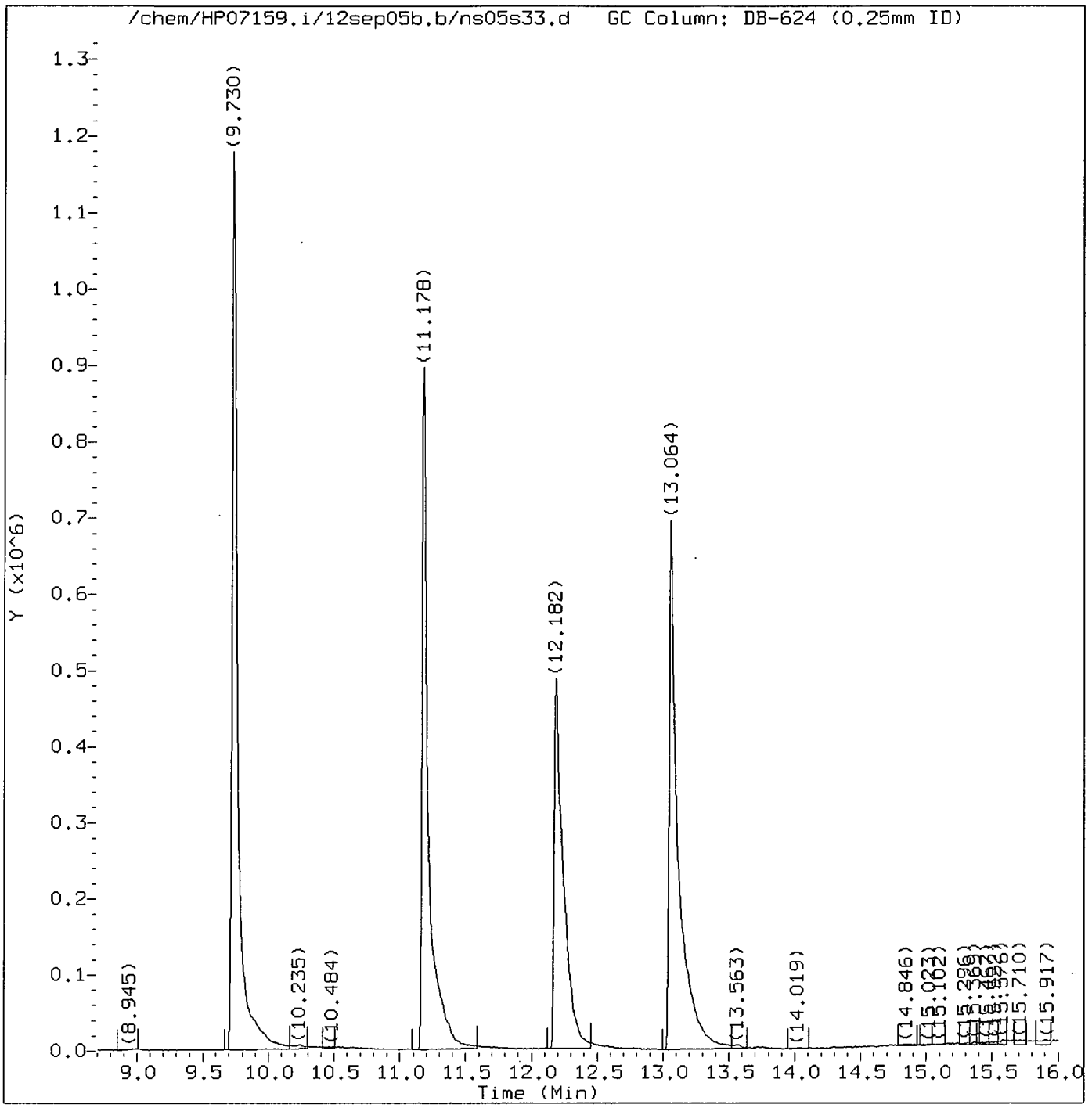
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s33.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:11 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:25 sag03174

Sample Name: PAT23 Lab Sample ID: 6769184

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:26.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s33.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:11 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:25 sag03174

Sample Name: PAT23 Lab Sample ID: 6769184

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:26.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s33.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:11 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:25 sag03174

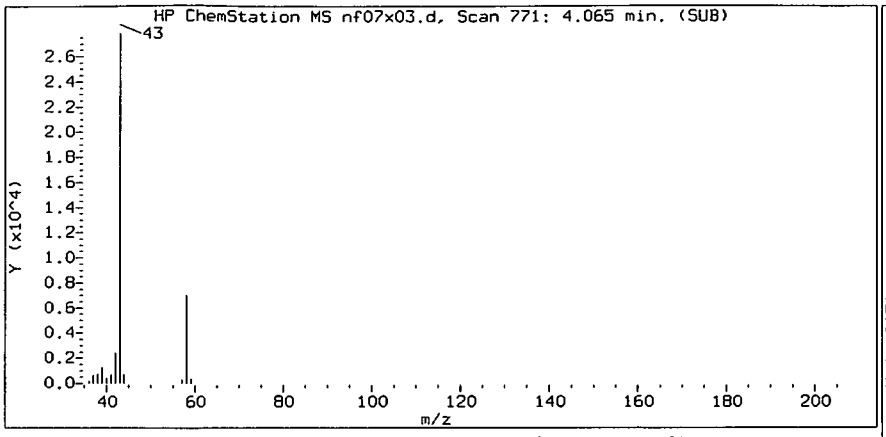
Sample Name: PAT23 Lab Sample ID: 6769184

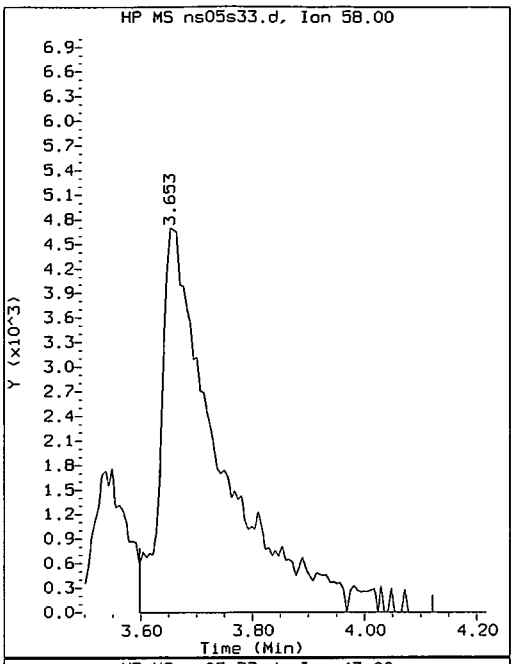
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
19) Acetone	(1)	3.653	58	34998	28.211
26)*t-Butyl Alcohol-d10	(4)	4.255	65	349191	250.000
42) 2-Butanone	(1)	6.335	43	73362MA	12.531
51)$Dibromofluoromethane	(1)	6.798	113	339539	51.383
62)$1,2-Dichloroethane-d4	(1)	7.254	102	88743	50.211
70)*Fluorobenzene	(1)	7.716	96	1478279	50.000
86)$Toluene-d8	(2)	9.730	98	1408719	47.708
98)*Chlorobenzene-d5	(2)	11.178	117	1055396	50.000
114)$4-Bromofluorobenzene	(2)	12.188	95	513542	47.835
130)*1,4-Dichlorobenzene-d4	(3)	13.064	152	591365	50.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

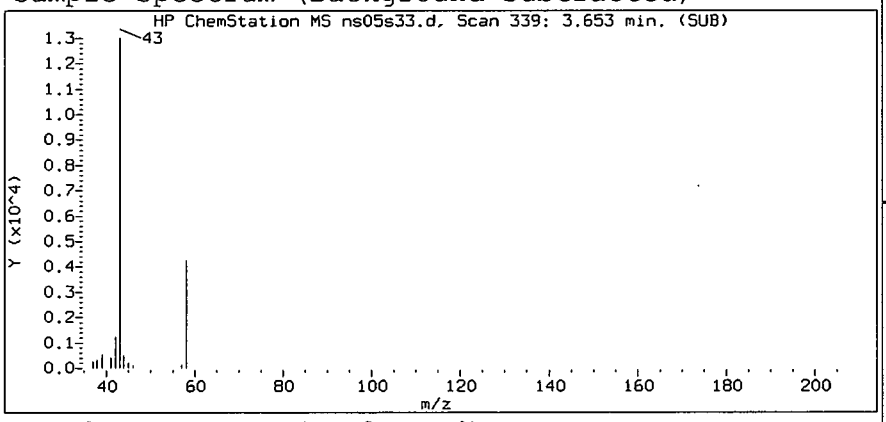
Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:26.
Target 3.5 esignature user ID: sag03174

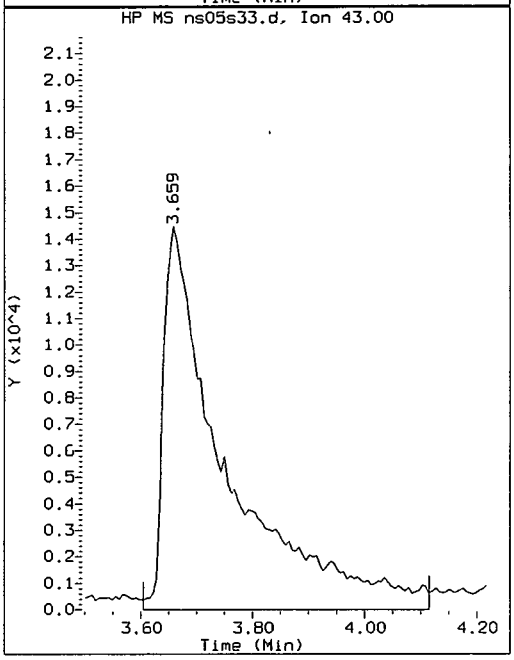
Reference Standard Spectrum for Acetone



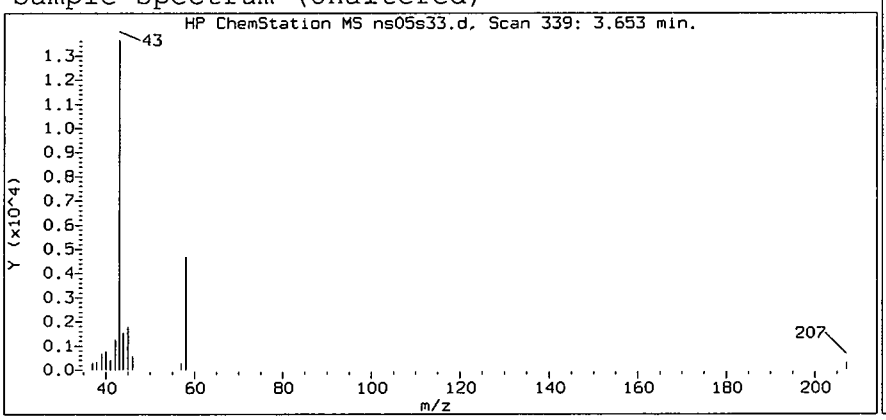


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s33.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:11 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:25 sag03174

Sample Name: PAT23 Lab Sample ID: 6769184

Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 339
Retention Time (minutes)	: 3.653
Relative Retention Time	:-0.00431
Quant Ion	: 58.00
Area (flag)	: 34998
On-Column Amount (ng)	: 28.2111

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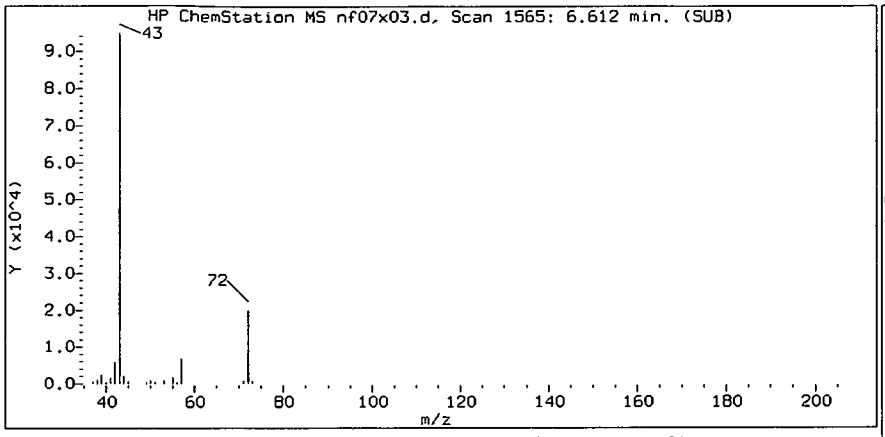
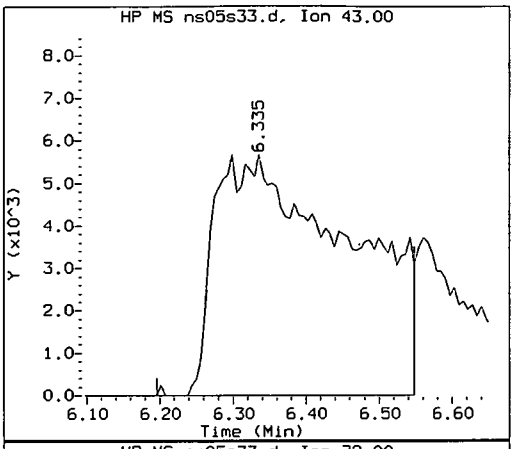
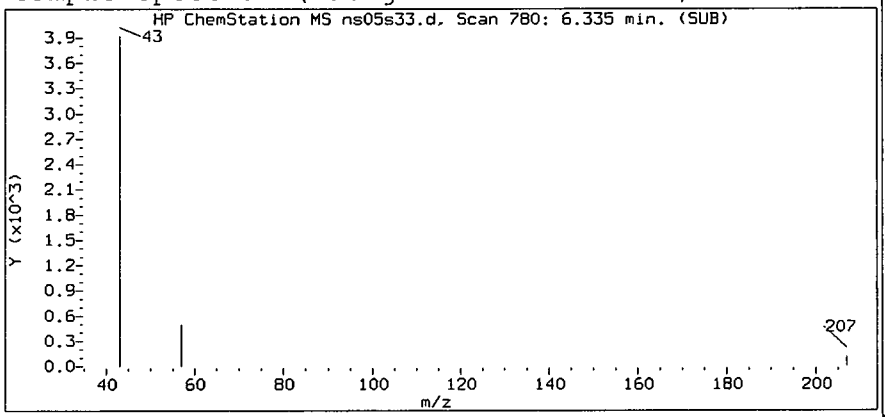
Target 3.5 esignature user ID: sag03174

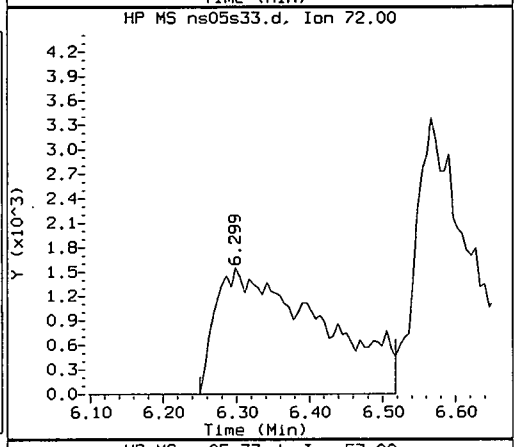
Reference Standard Spectrum for 2-Butanone



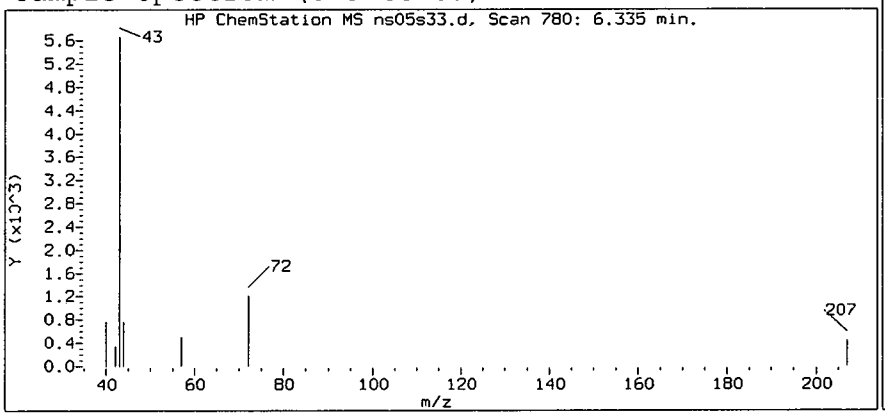


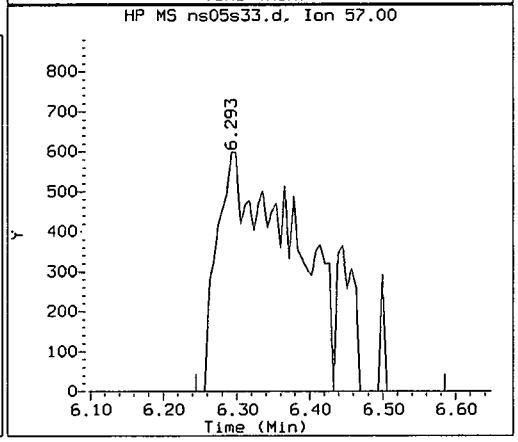
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s33.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:11 Analyst ID: ERS02237

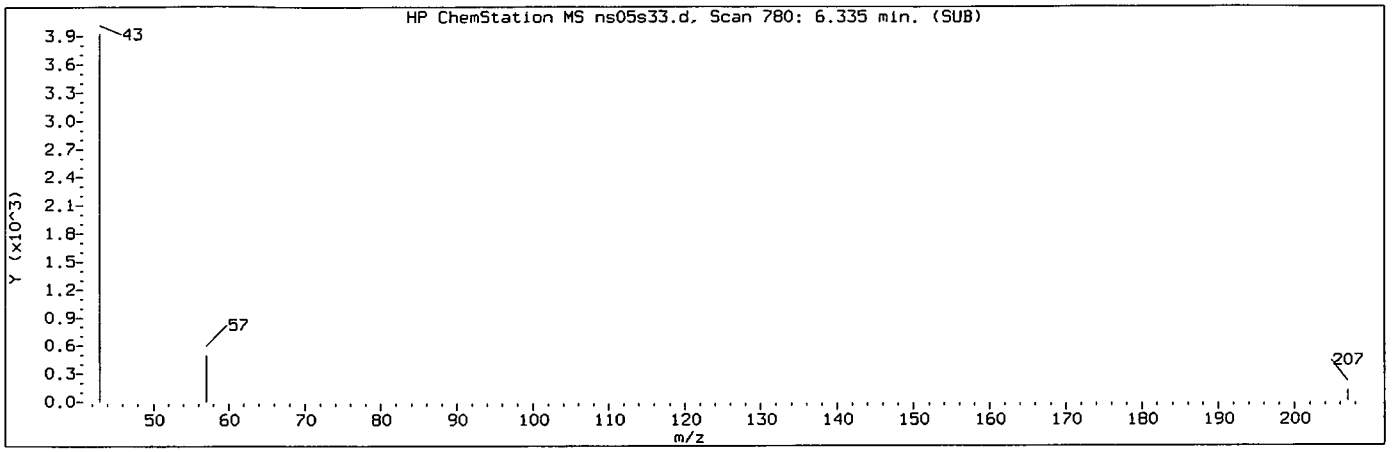
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:25 sag03174

Sample Name: PAT23 Lab Sample ID: 6769184

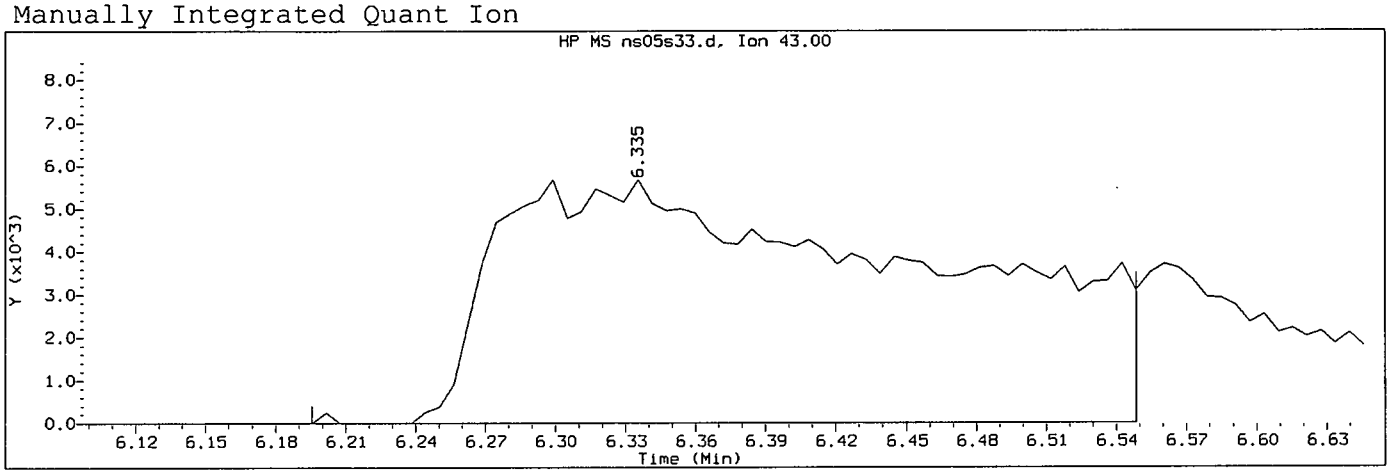
Compound Number	: 42
Compound Name	: 2-Butanone
Scan Number	: 780
Retention Time (minutes)	: 6.335
Relative Retention Time	:-0.02458
Quant Ion	: 43.00
Area (flag)	: 73362AM
On-Column Amount (ng)	: 12.5308

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:26.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s33.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:11 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:25 sag03174

Sample Name: PAT23 Lab Sample ID: 6769184

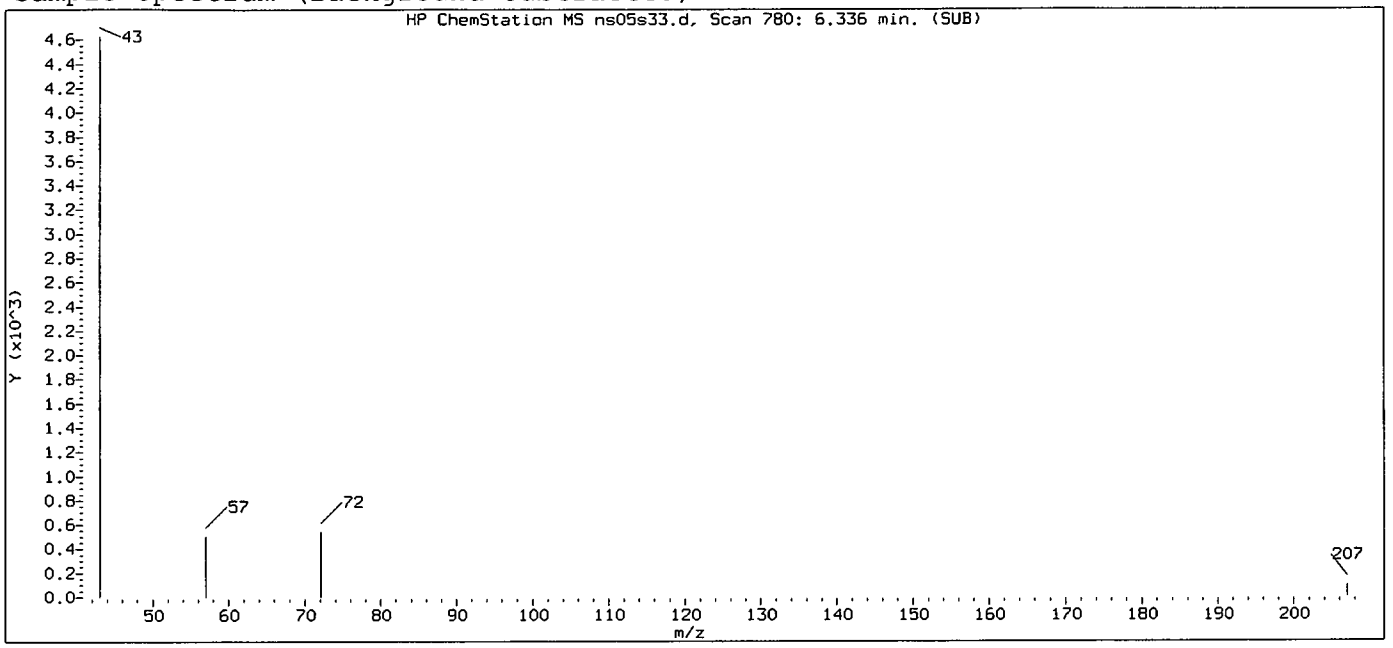
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 780		
Retention Time (minutes)	: 6.335		
Quant Ion	: 43.00		
Area (flag)	: 73362AM		
On-Column Amount (ng)	: 12.5308		
Integration start scan	: 756	Integration stop scan:	814
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

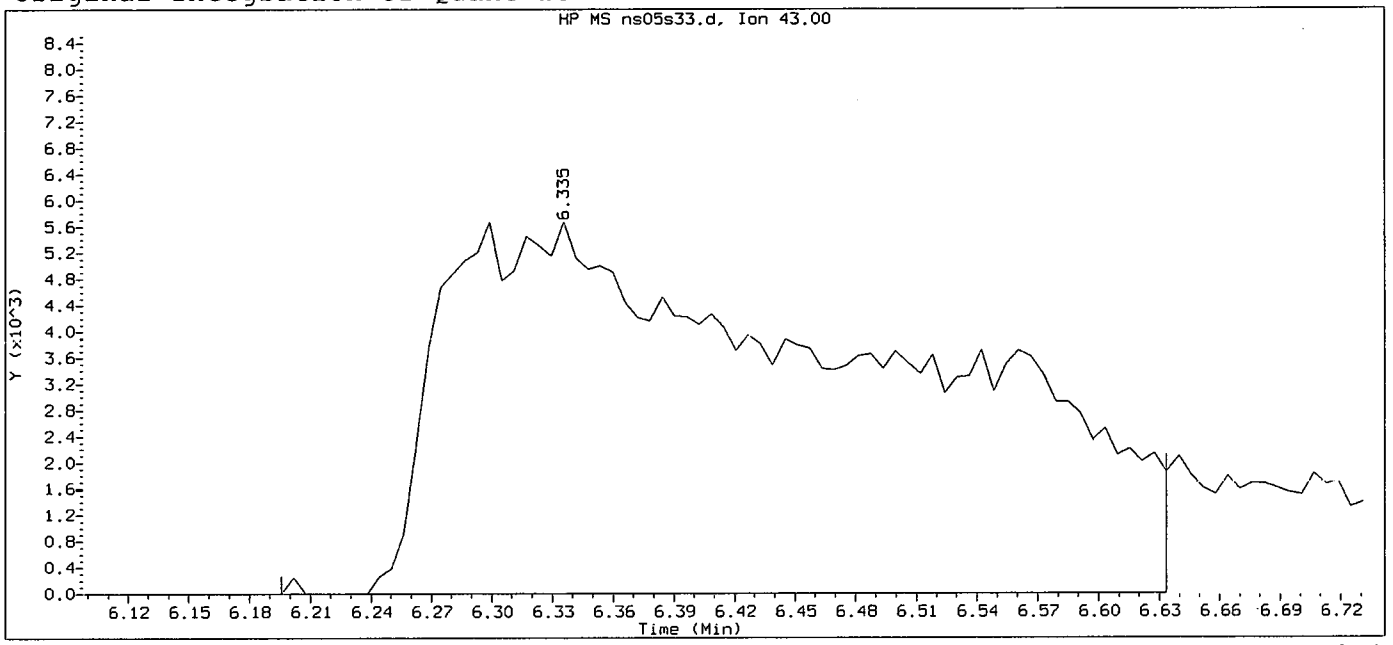
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:26. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s33.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:11 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 14:31 Automation

Sample Name: PAT23 Lab Sample ID: 6769184

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 780		
Retention Time (minutes)	: 6.335		
Quant Ion	: 43.00		
Area	: 86875		
On-column Amount (ng)	: 14.8389		
Integration start scan	: 756	Integration stop scan:	828
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:26.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT11

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769185

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s34.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	9	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	6	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT11

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769185

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s34.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-86-1	Bromobenzene		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT11

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769185

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s34.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT11

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6769185

Data file: /chem/HP07159.i/12sep05b.b/ns05s34.d Injection date and time: **05-SEP-2012 14:35**
Data file Sample Info. Line: PAT11;6769185;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.252	(-0.015)	438	65	343242	(-10)	250.00	
70) Fluorobenzene	7.714	(-0.003)	1007	96	1460843	(-3)	50.00	
98) Chlorobenzene-d5	11.181	(-0.015)	1577	117	1044569	(-2)	50.00	
130) 1,4-Dichlorobenzene-d4	13.061	(-0.033)	1886	152	588743	(-7)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.795	(-0.001)	113	332842	50.971	102%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.258	(-0.001)	102	88713	50.793	102%		77 - 113
86) Toluene-d8	(2)	9.734	(0.000)	98	1394488	47.715	95%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.185	(-0.001)	95	508262	47.834	96%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)				Not Detected					0.8	5
19) Acetone	(1)	3.699	(-0.010)	58	11003	8.975	8.98		J	6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)				Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)	6.363	(-0.028)	43	32635MA	5.641	5.64		J	3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:28. Target 3.5 esignature user ID: sag03174

PAT11 Lancaster Laboratories 6769185
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/12sep05b.b/ns05s34.d Injection date and time: **05-SEP-2012 14:35**
Data file Sample Info. Line: PAT11;6769185;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

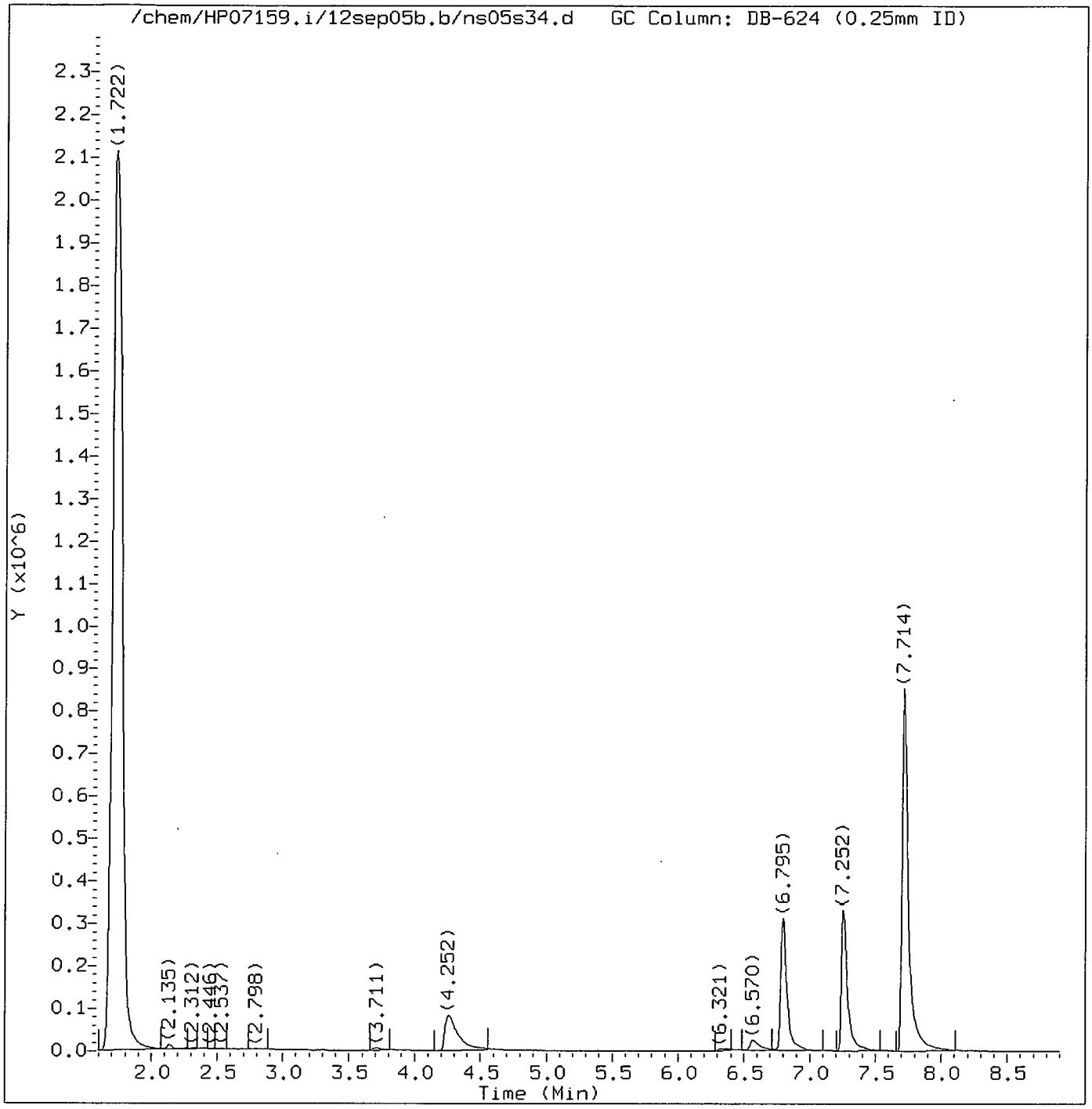
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:28. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

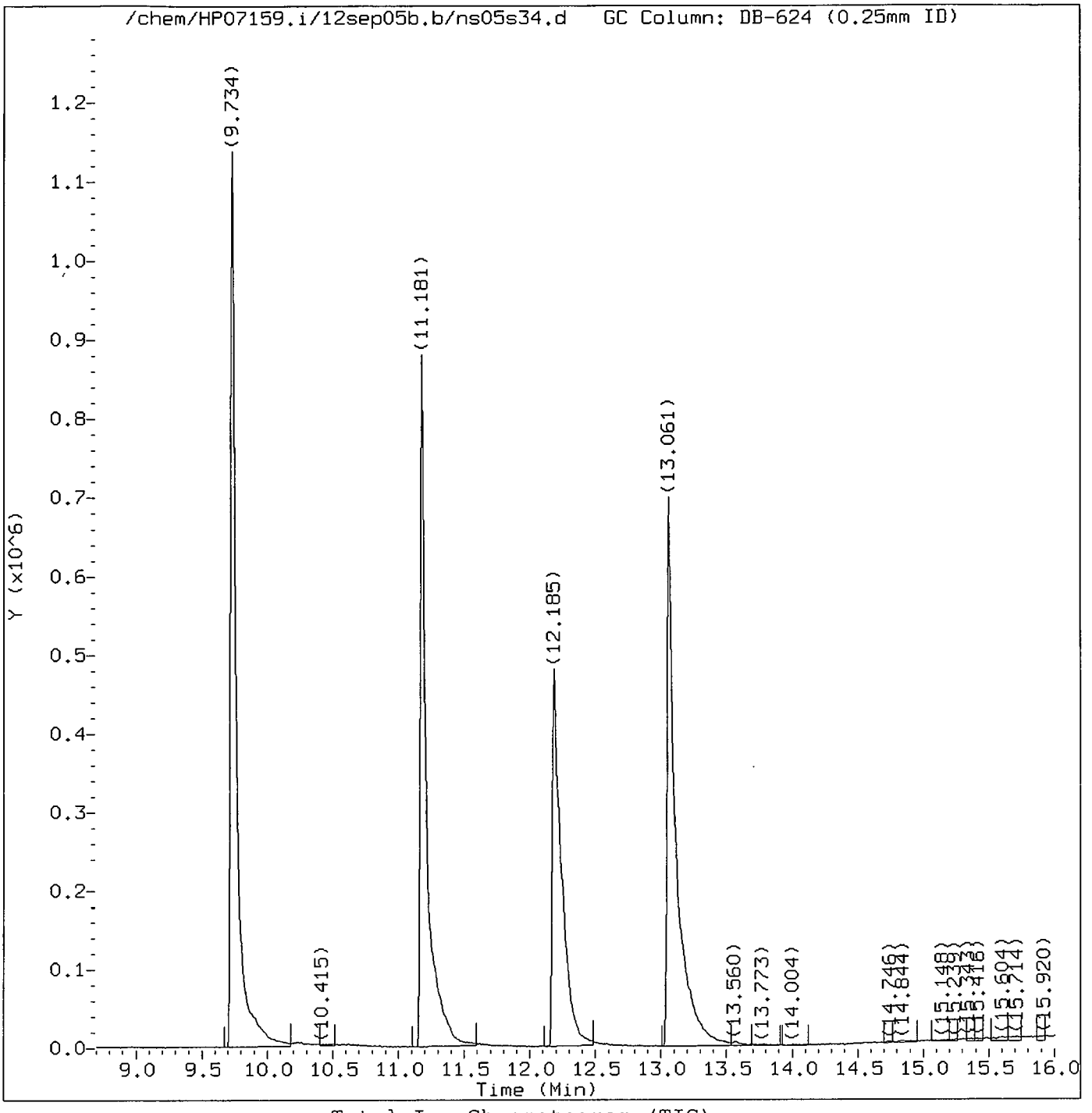
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s34.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:35 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Sample Name: PAT11 Lab Sample ID: 6769185

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:28.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s34.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:35 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Sample Name: PAT11 Lab Sample ID: 6769185

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:28.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s34.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:35 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

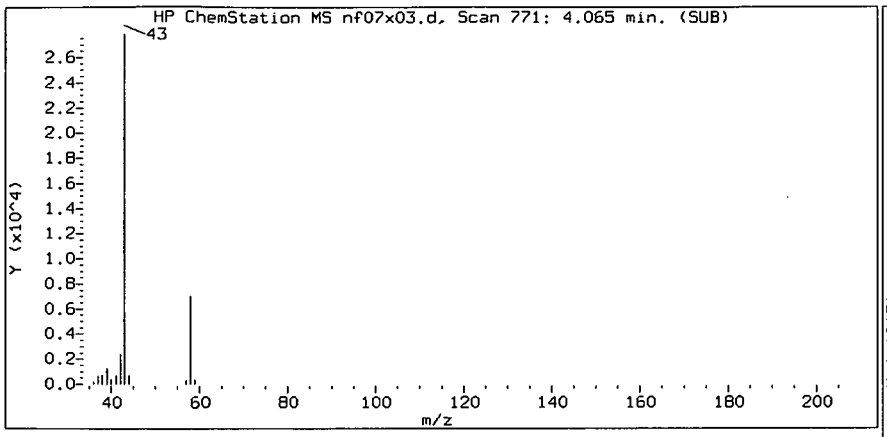
Sample Name: PAT11 Lab Sample ID: 6769185

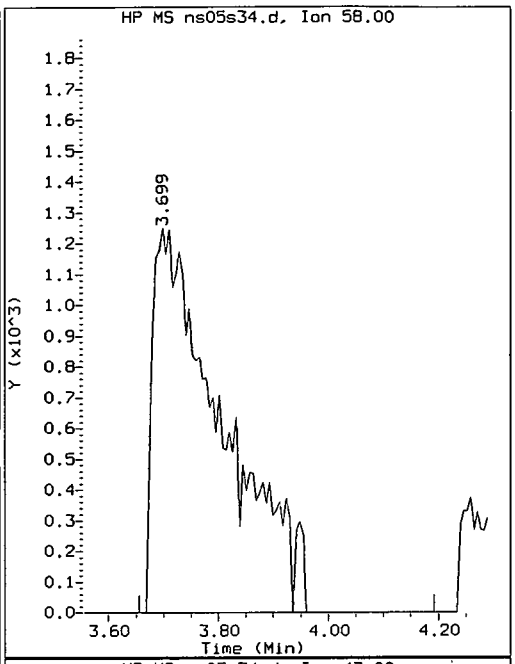
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
19) Acetone	(1)	3.699	58	11003	8.975
26)*t-Butyl Alcohol-d10	(4)	4.252	65	343242	250.000
42) 2-Butanone	(1)	6.363	43	32635MA	5.641
51)$Dibromofluoromethane	(1)	6.795	113	332842	50.971
62)$1,2-Dichloroethane-d4	(1)	7.258	102	88713	50.793
70)*Fluorobenzene	(1)	7.714	96	1460843	50.000
86)$Toluene-d8	(2)	9.734	98	1394488	47.715
98)*Chlorobenzene-d5	(2)	11.181	117	1044569	50.000
114)$4-Bromofluorobenzene	(2)	12.185	95	508262	47.834
130)*1,4-Dichlorobenzene-d4	(3)	13.061	152	588743	50.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

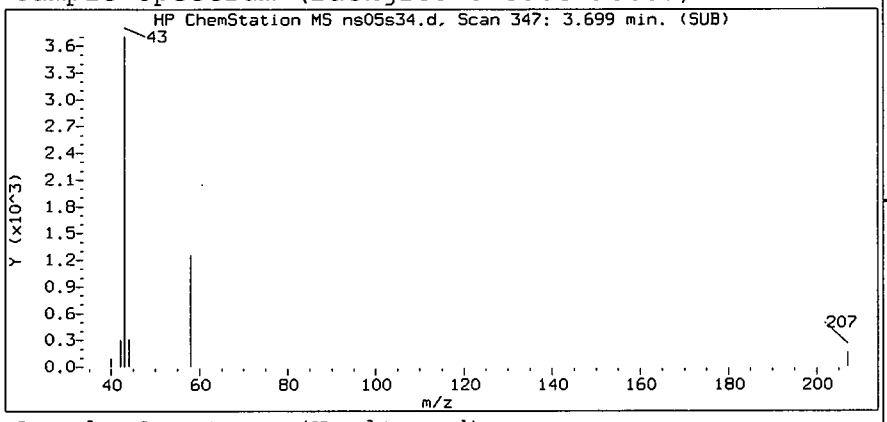
Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:28.
Target 3.5 esignature user ID: sag03174

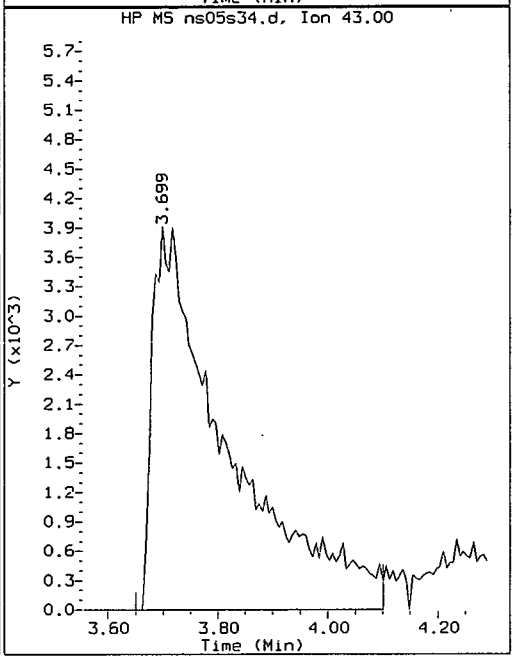
Reference Standard Spectrum for Acetone



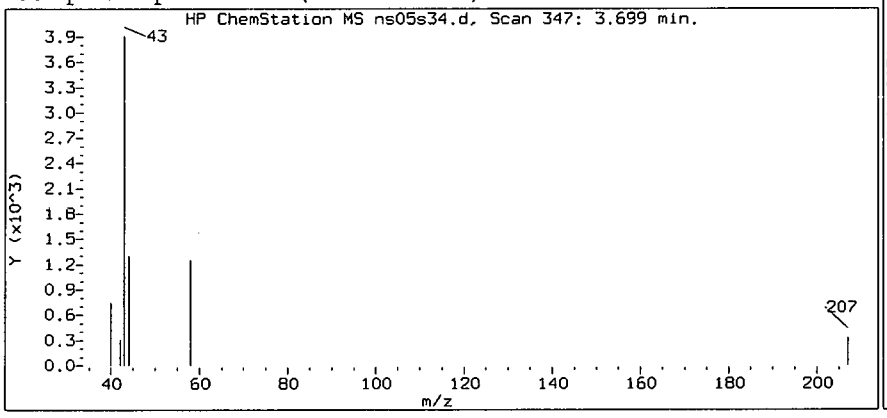


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s34.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:35 Analyst ID: ERS02237

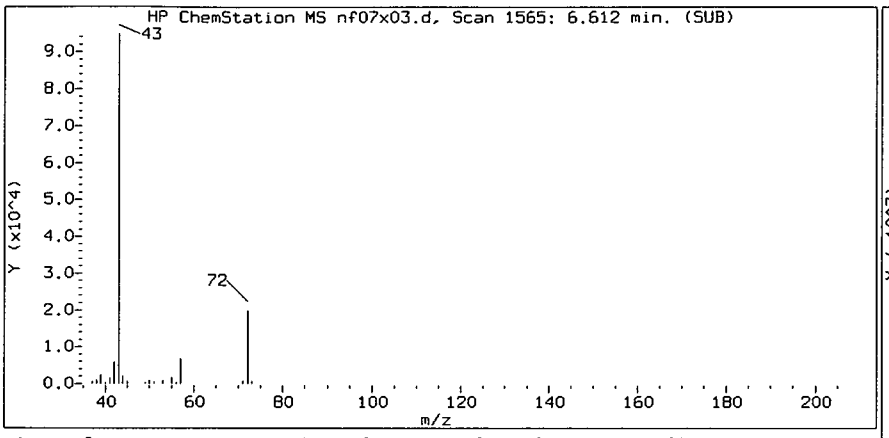
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

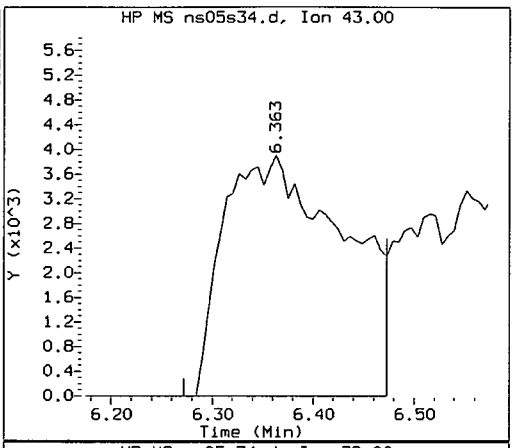
Sample Name: PAT11 Lab Sample ID: 6769185

Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 347
Retention Time (minutes)	: 3.699
Relative Retention Time	:-0.01045
Quant Ion	: 58.00
Area (flag)	: 11003
On-Column Amount (ng)	: 8.9751

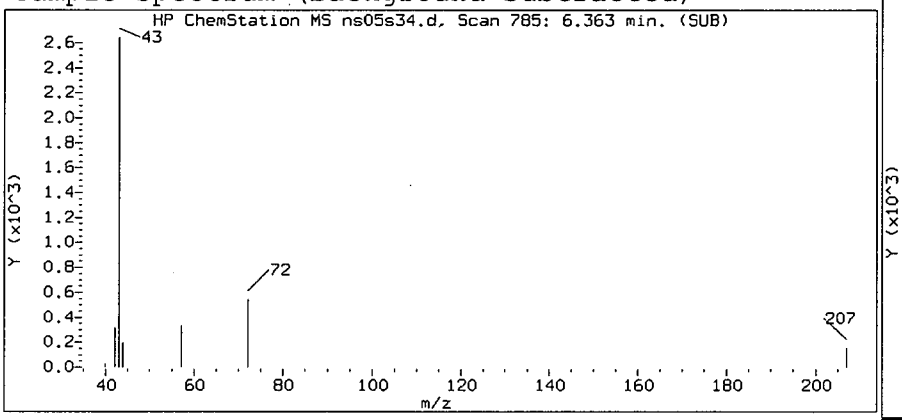
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:28.
Target 3.5 esignature user ID: sag03174

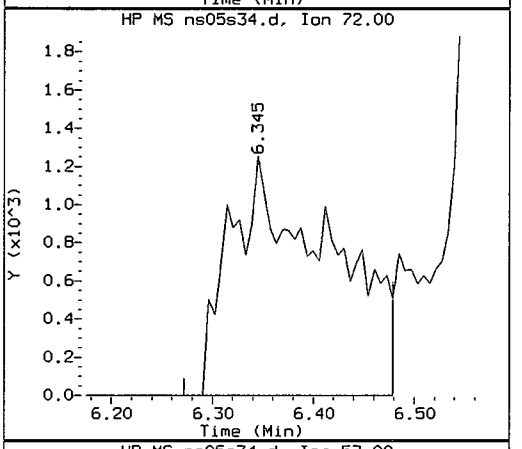
Reference Standard Spectrum for 2-Butanone



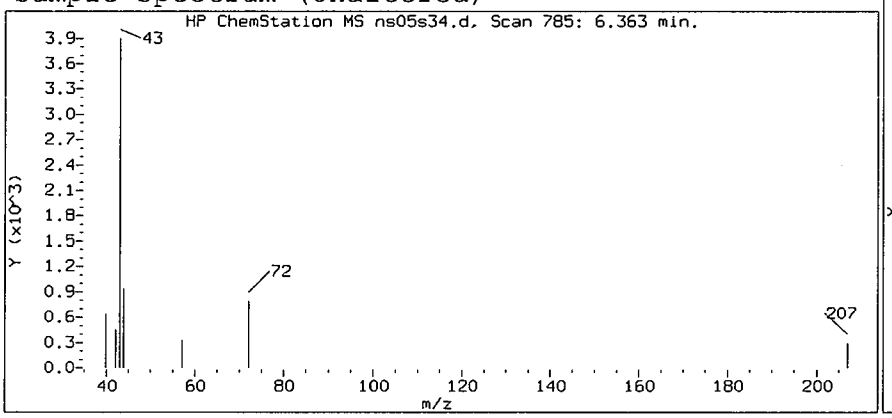


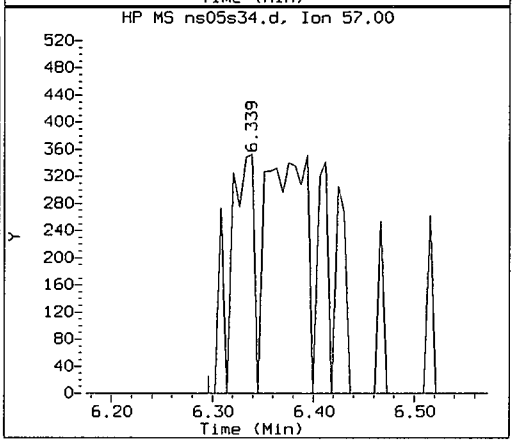
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s34.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:35 Analyst ID: ERS02237

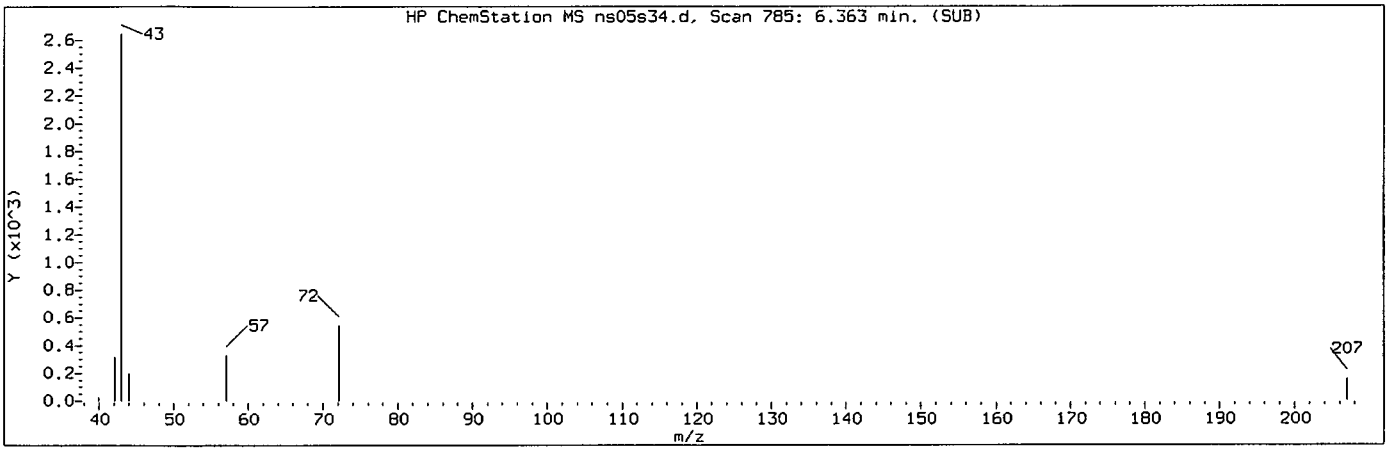
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Sample Name: PAT11 Lab Sample ID: 6769185

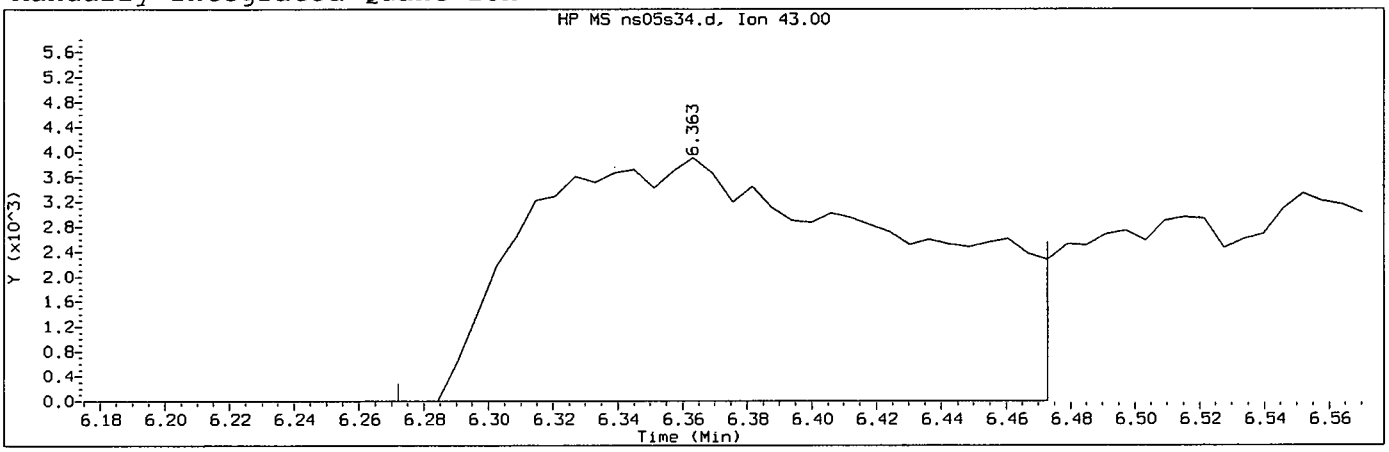
Compound Number	: 42
Compound Name	: 2-Butanone
Scan Number	: 785
Retention Time (minutes)	: 6.363
Relative Retention Time	:-0.02846
Quant Ion	: 43.00
Area (flag)	: 32635AM
On-Column Amount (ng)	: 5.6409

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:28.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s34.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:35 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Sample Name: PAT11 Lab Sample ID: 6769185

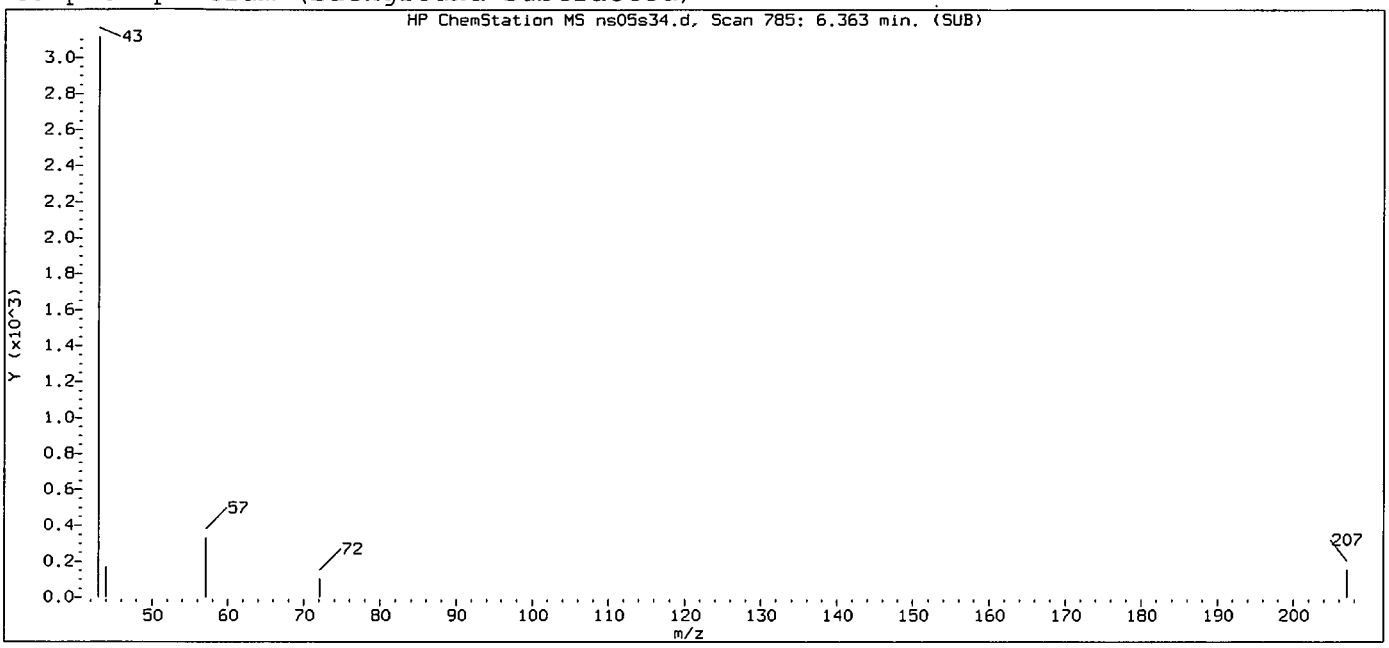
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 785		
Retention Time (minutes)	: 6.363		
Quant Ion	: 43.00		
Area (flag)	: 32635AM		
On-Column Amount (ng)	: 5.6409		
Integration start scan	: 769	Integration stop scan:	802
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

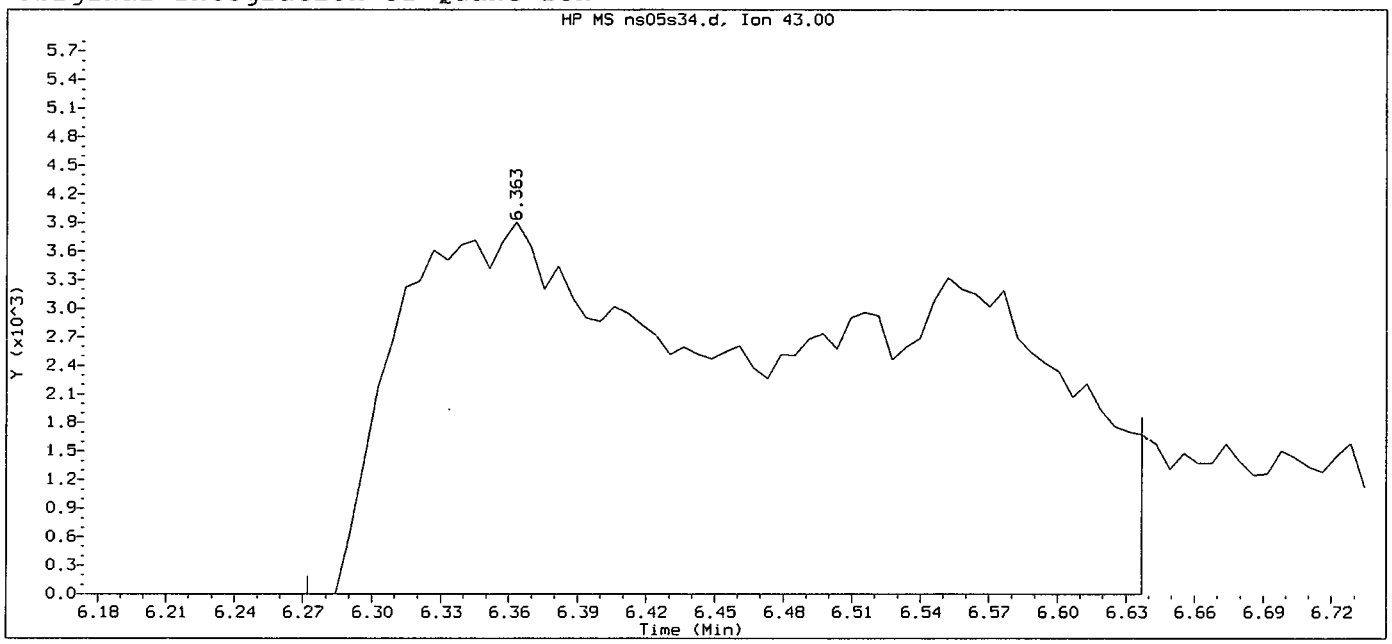
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:28. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s34.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:35 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 14:55 Automation

Sample Name: PAT11 Lab Sample ID: 6769185

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 785		
Retention Time (minutes)	: 6.363		
Quant Ion	: 43.00		
Area	: 57815		
On-column Amount (ng)	: 9.9932		
Integration start scan	: 769	Integration stop scan:	829
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:28.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-4

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769186

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s35.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	10	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	8	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-4

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769186

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s35.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-4

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769186

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s35.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT-4

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769186

Data file: /chem/HP07159.i/12sep05b.b/ns05s35.d
Injection date and time: **05-SEP-2012 14:58**
Data file Sample Info. Line: PAT-4;6769186;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.257	(-0.020)	439	65	330143	(-13)	250.00	
70) Fluorobenzene	7.719	(-0.008)	1008	96	1435372	(-5)	50.00	
98) Chlorobenzene-d5	11.180	(-0.014)	1577	117	1039166	(-2)	50.00	
130) 1,4-Dichlorobenzene-d4	13.060	(-0.032)	1886	152	583185	(-7)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.794	(0.000)	113	331235	51.625	103%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.256	(0.000)	102	87219	50.824	102%		77 - 113
86) Toluene-d8	(2)	9.732	(0.000)	98	1377202	47.369	95%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.184	(-0.001)	95	508776	48.132	96%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)				Not Detected					0.8	5
19) Acetone	(1)	3.716	(-0.012)	58	11680	9.696	9.70		J	6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)				Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)	6.332	(-0.023)	43	42755MA	7.521	7.52		J	3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:29. Target 3.5 esignature user ID: sag03174

PAT-4

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6769186

Data file: /chem/HP07159.i/12sep05b.b/ns05s35.d Injection date and time: **05-SEP-2012 14:58**
Data file Sample Info. Line: PAT-4;6769186;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

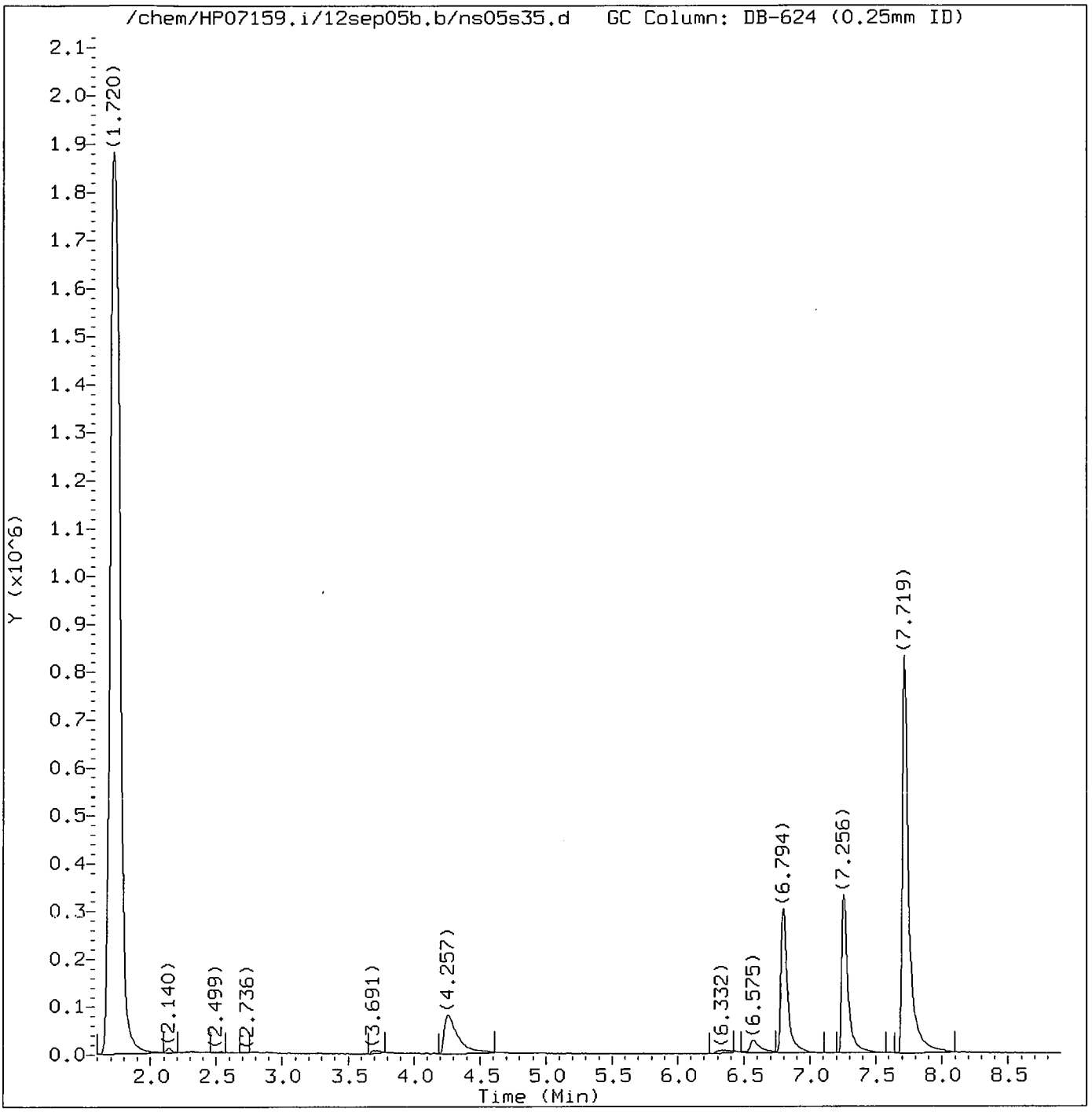
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:29. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

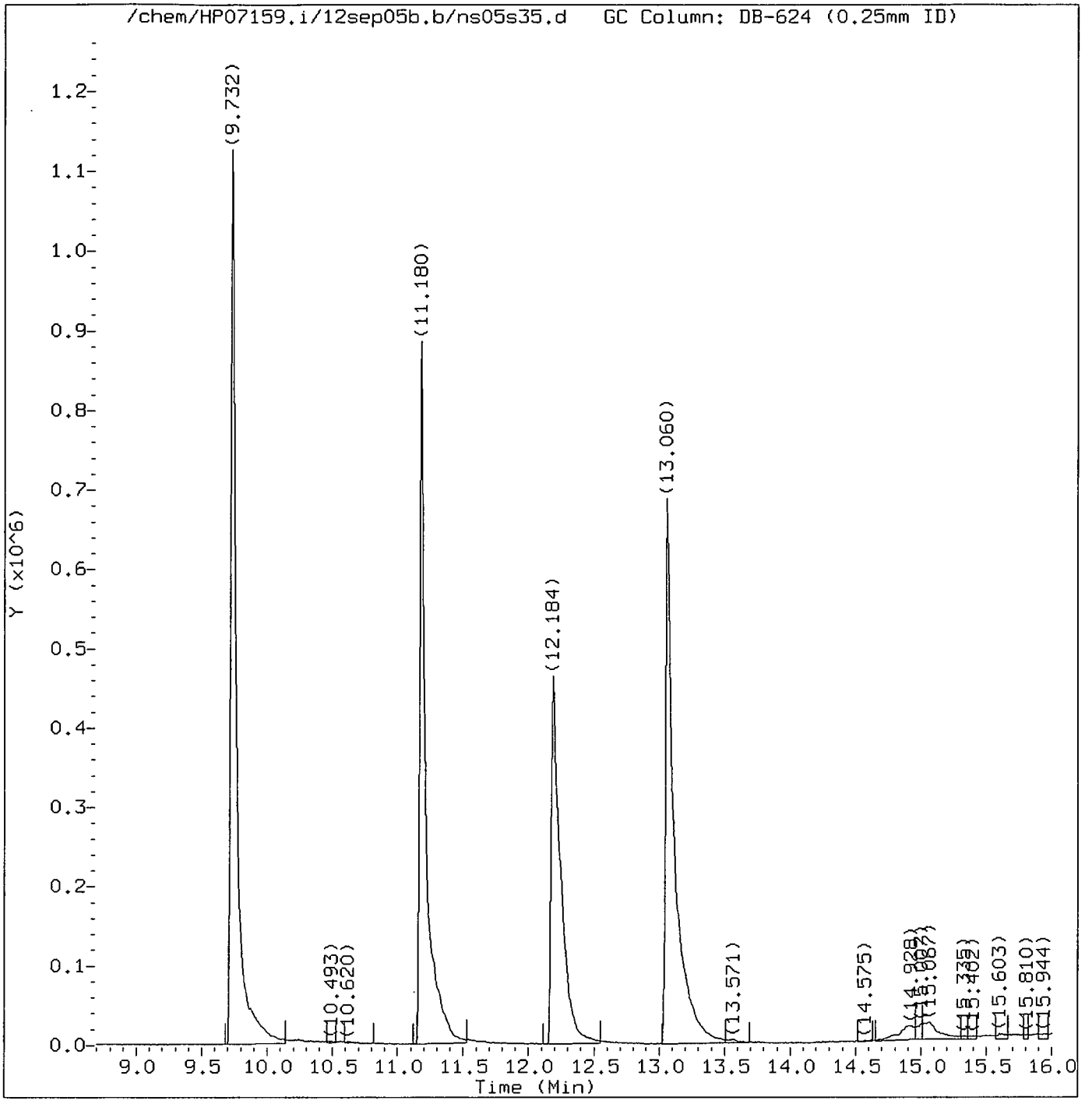
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s35.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Sample Name: PAT-4 Lab Sample ID: 6769186

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s35.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Sample Name: PAT-4 Lab Sample ID: 6769186

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s35.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

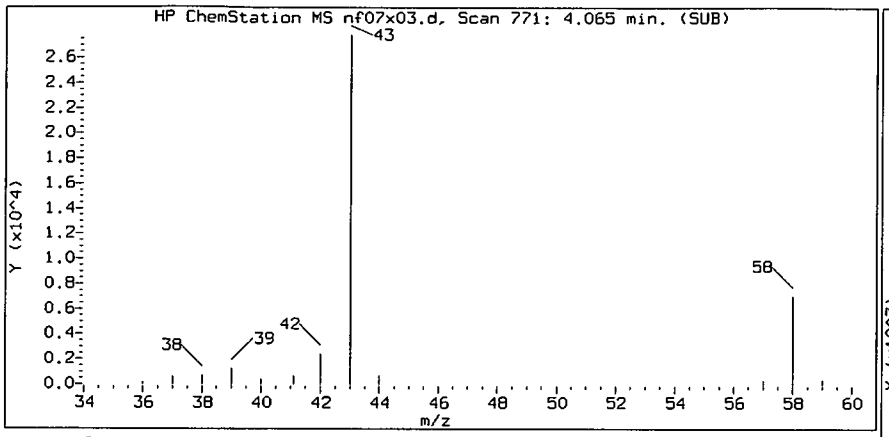
Sample Name: PAT-4 Lab Sample ID: 6769186

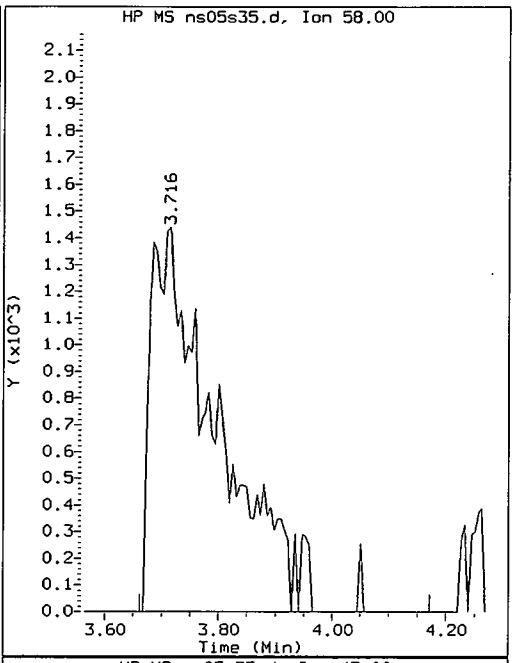
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
19) Acetone	(1)	3.716	58	11680	9.696
26)*t-Butyl Alcohol-d10	(4)	4.257	65	330143	250.000
42) 2-Butanone	(1)	6.332	43	42755MA	7.521
51)$Dibromofluoromethane	(1)	6.794	113	331235	51.625
62)$1,2-Dichloroethane-d4	(1)	7.256	102	87219	50.824
70)*Fluorobenzene	(1)	7.719	96	1435372	50.000
86)$Toluene-d8	(2)	9.732	98	1377202	47.369
98)*Chlorobenzene-d5	(2)	11.180	117	1039166	50.000
114)$4-Bromofluorobenzene	(2)	12.184	95	508776	48.132
130)*1,4-Dichlorobenzene-d4	(3)	13.060	152	583185	50.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

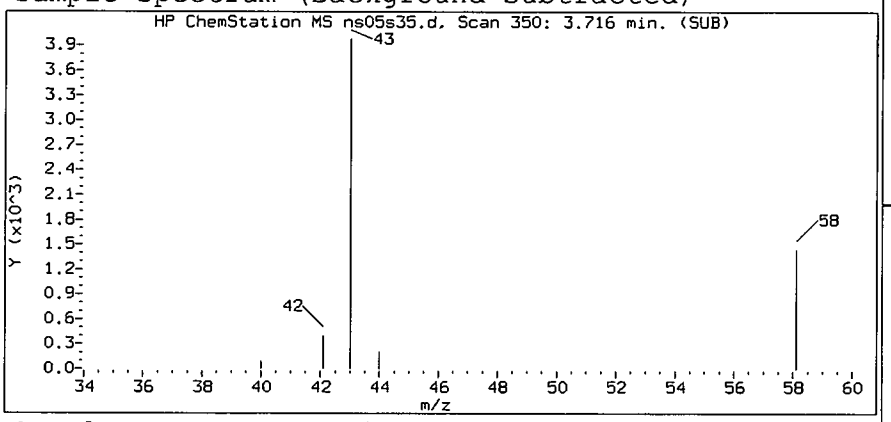
Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

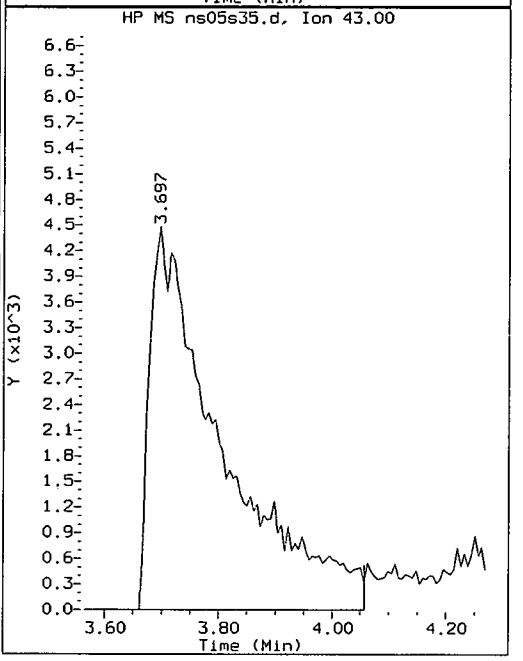
Reference Standard Spectrum for Acetone



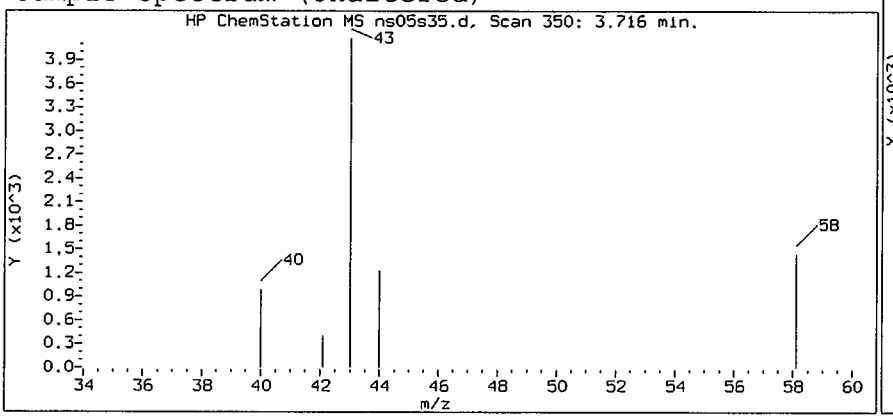


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s35.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:58 Analyst ID: ERS02237

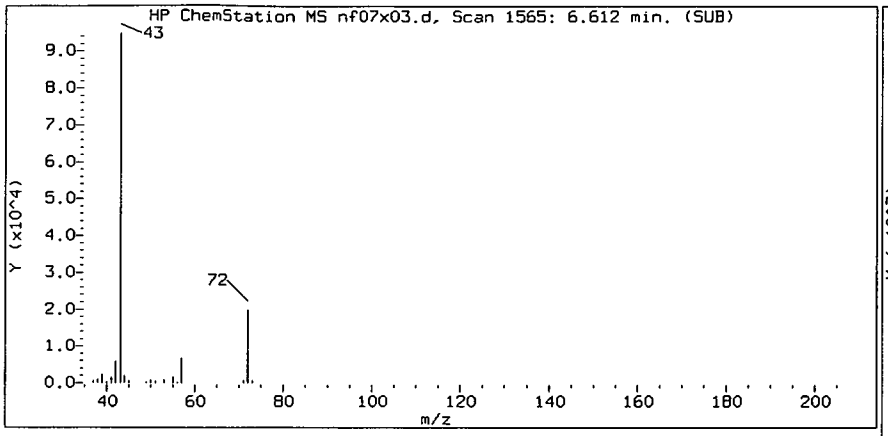
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

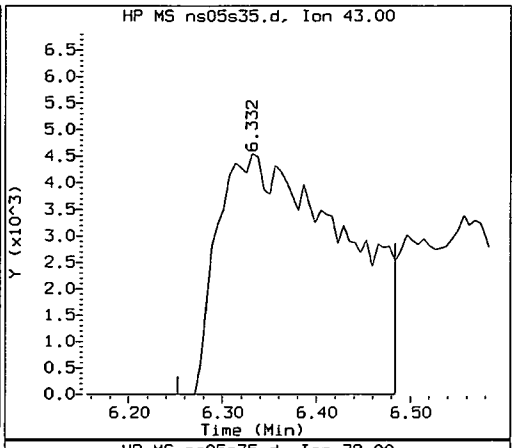
Sample Name: PAT-4 Lab Sample ID: 6769186

Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 350
Retention Time (minutes)	: 3.716
Relative Retention Time	:-0.01235
Quant Ion	: 58.00
Area (flag)	: 11680
On-Column Amount (ng)	: 9.6964

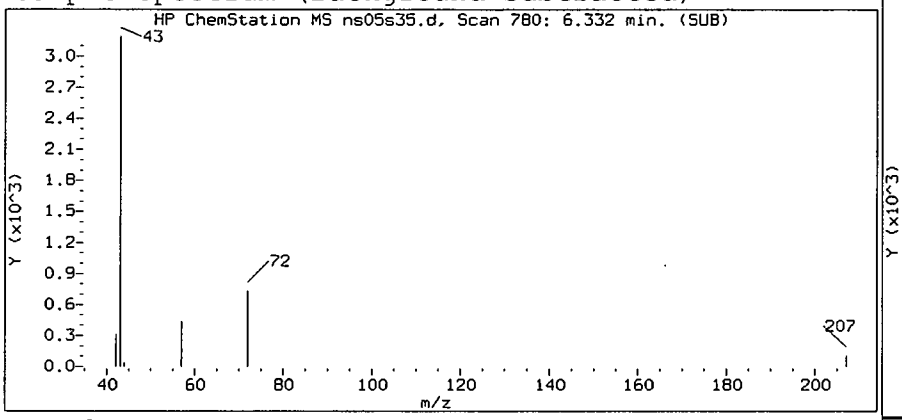
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

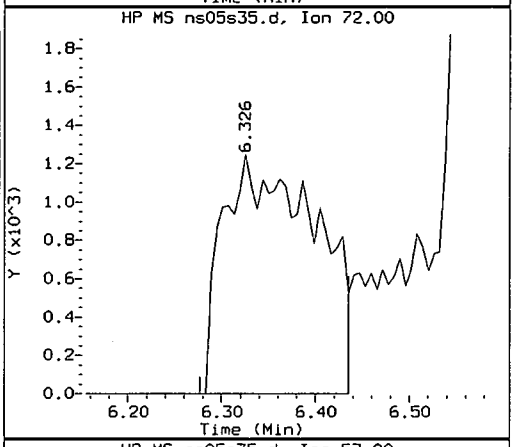
Reference Standard Spectrum for 2-Butanone



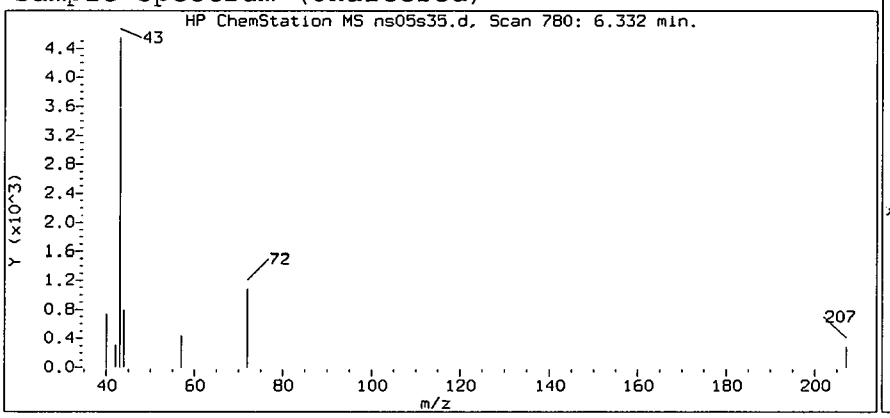


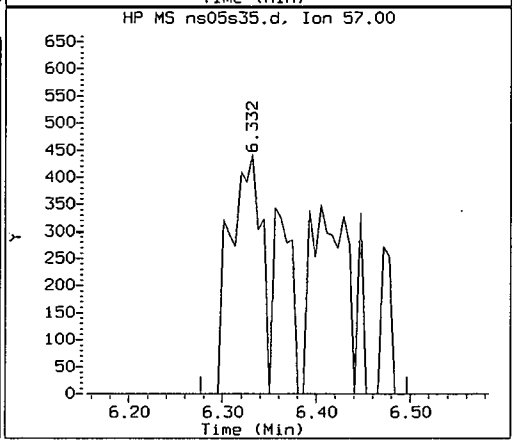
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s35.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:58 Analyst ID: ERS02237

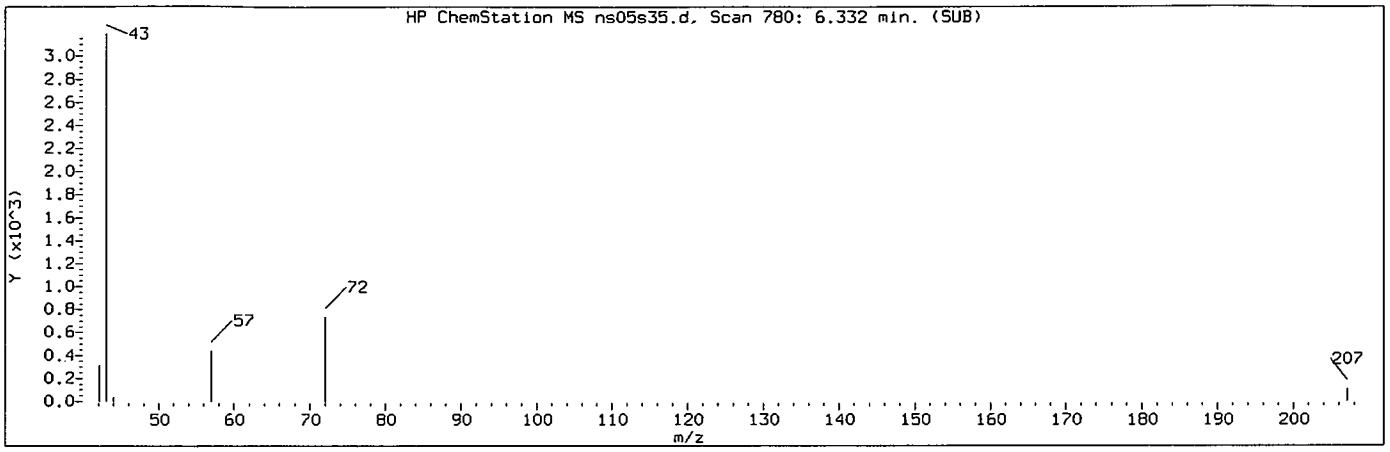
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Sample Name: PAT-4 Lab Sample ID: 6769186

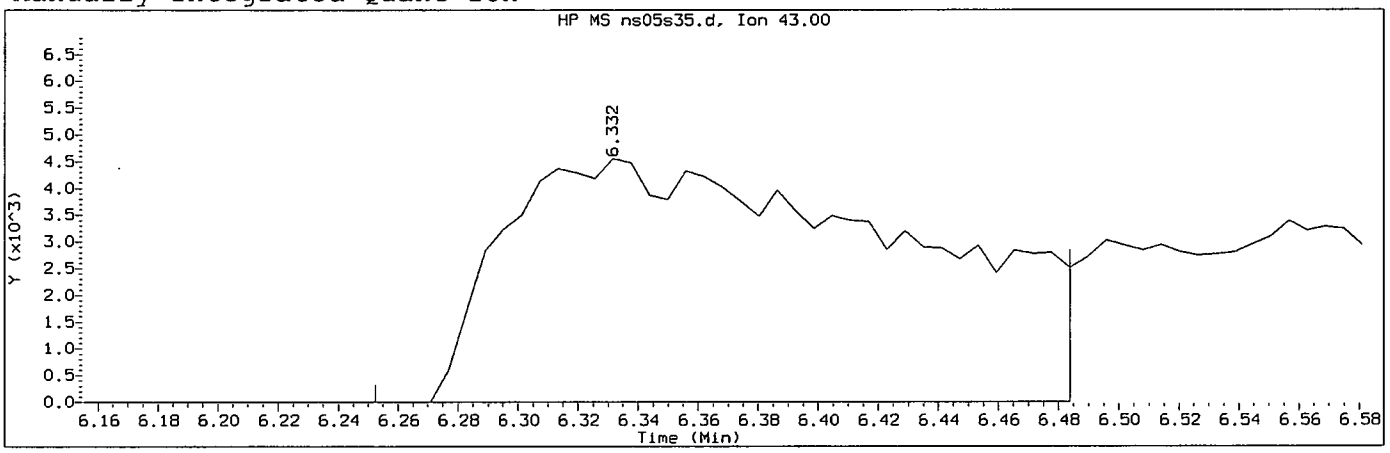
Compound Number	: 42
Compound Name	: 2-Butanone
Scan Number	: 780
Retention Time (minutes)	: 6.332
Relative Retention Time	:-0.02384
Quant Ion	: 43.00
Area (flag)	: 42755AM
On-Column Amount (ng)	: 7.5212

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s35.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:28 sag03174

Sample Name: PAT-4 Lab Sample ID: 6769186

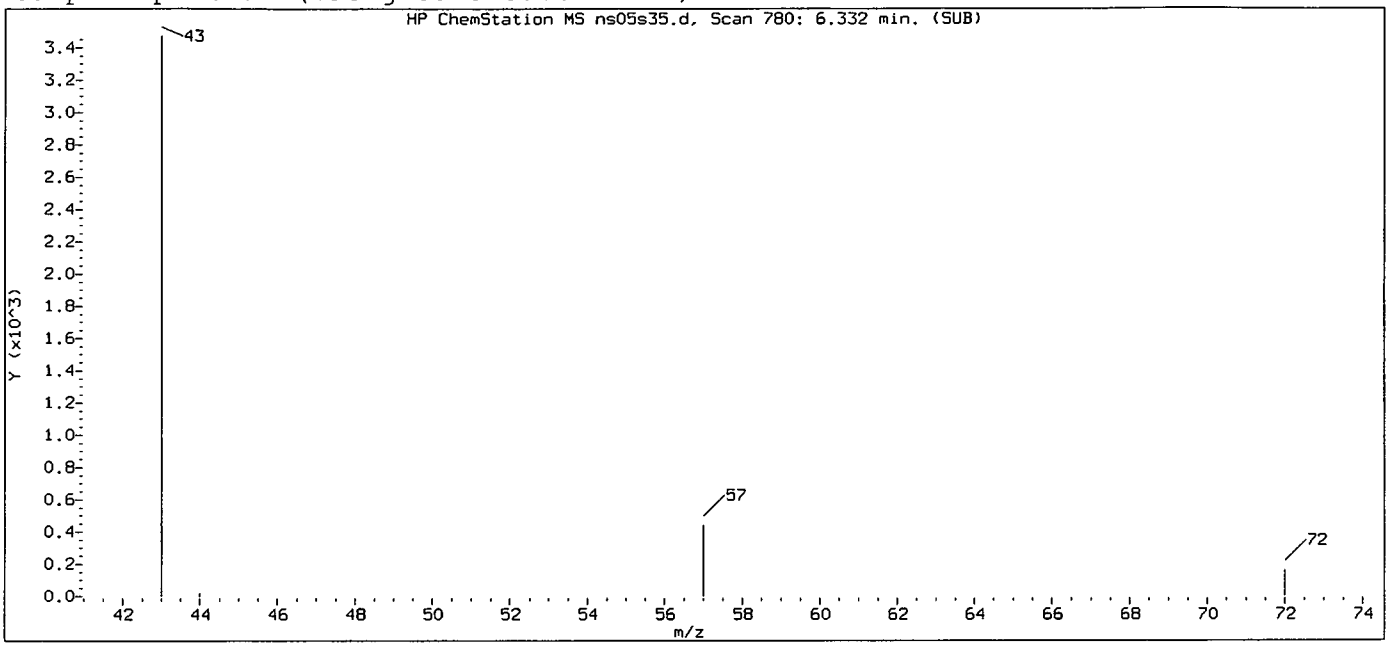
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 780		
Retention Time (minutes)	: 6.332		
Quant Ion	: 43.00		
Area (flag)	: 42755AM		
On-Column Amount (ng)	: 7.5212		
Integration start scan	: 766	Integration stop scan:	804
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

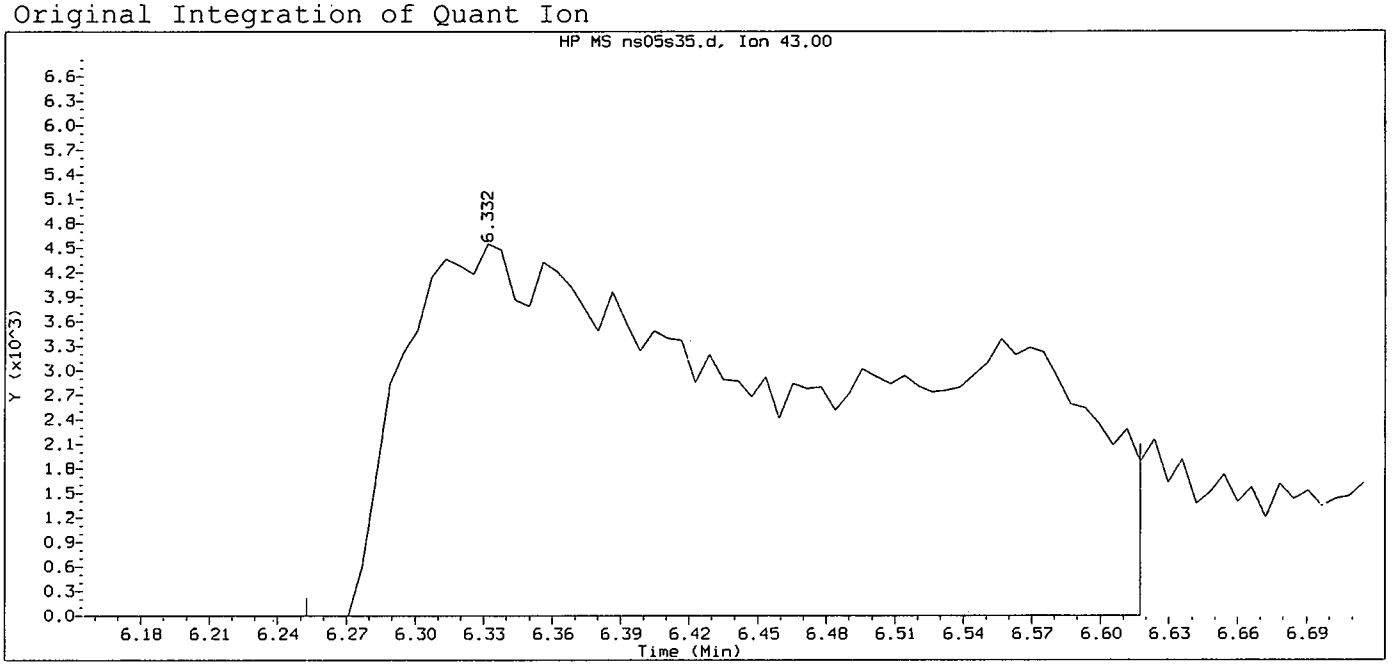
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s35.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 14:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 15:19 Automation

Sample Name: PAT-4 Lab Sample ID: 6769186

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 780		
Retention Time (minutes)	: 6.332		
Quant Ion	: 43.00		
Area	: 64793		
On-column Amount (ng)	: 11.3980		
Integration start scan	: 766	Integration stop scan:	826
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-9

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769187

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s36.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	1	J
67-64-1	Acetone	20	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	10	U
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-9

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769187

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s36.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-9

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769187

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s36.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT-9

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6769187

Data file: /chem/HP07159.i/12sep05b.b/ns05s36.d Injection date and time: **05-SEP-2012 15:21**
Data file Sample Info. Line: PAT-9;6769187;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 17:10 ers02237

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.259	(-0.022)	439	65	336169	(-11)	250.00	
70) Fluorobenzene	7.715	(-0.004)	1007	96	1421023	(-6)	50.00	
98) Chlorobenzene-d5	11.182	(-0.016)	1577	117	1028312	(-3)	50.00	
130) 1,4-Dichlorobenzene-d4	13.062	(-0.034)	1886	152	574669	(-9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.796	(-0.001)	113	325036	51.170	102%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.252	(0.000)	102	85997	50.618	101%		77 - 113
86) Toluene-d8	(2)	9.734	(0.000)	98	1353838	47.057	94%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.186	(-0.001)	95	496760	47.491	95%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.578	(-0.000)	96	7555	1.307	1.31		J	0.8	5
19) Acetone	(1)				Not Detected					6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)				Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)				Not Detected					3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

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PAT-9

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769187

Data file: /chem/HP07159.i/12sep05b.b/ns05s36.d
Injection date and time: **05-SEP-2012 15:21**
Data file Sample Info. Line: PAT-9;6769187;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 17:10 ers02237

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

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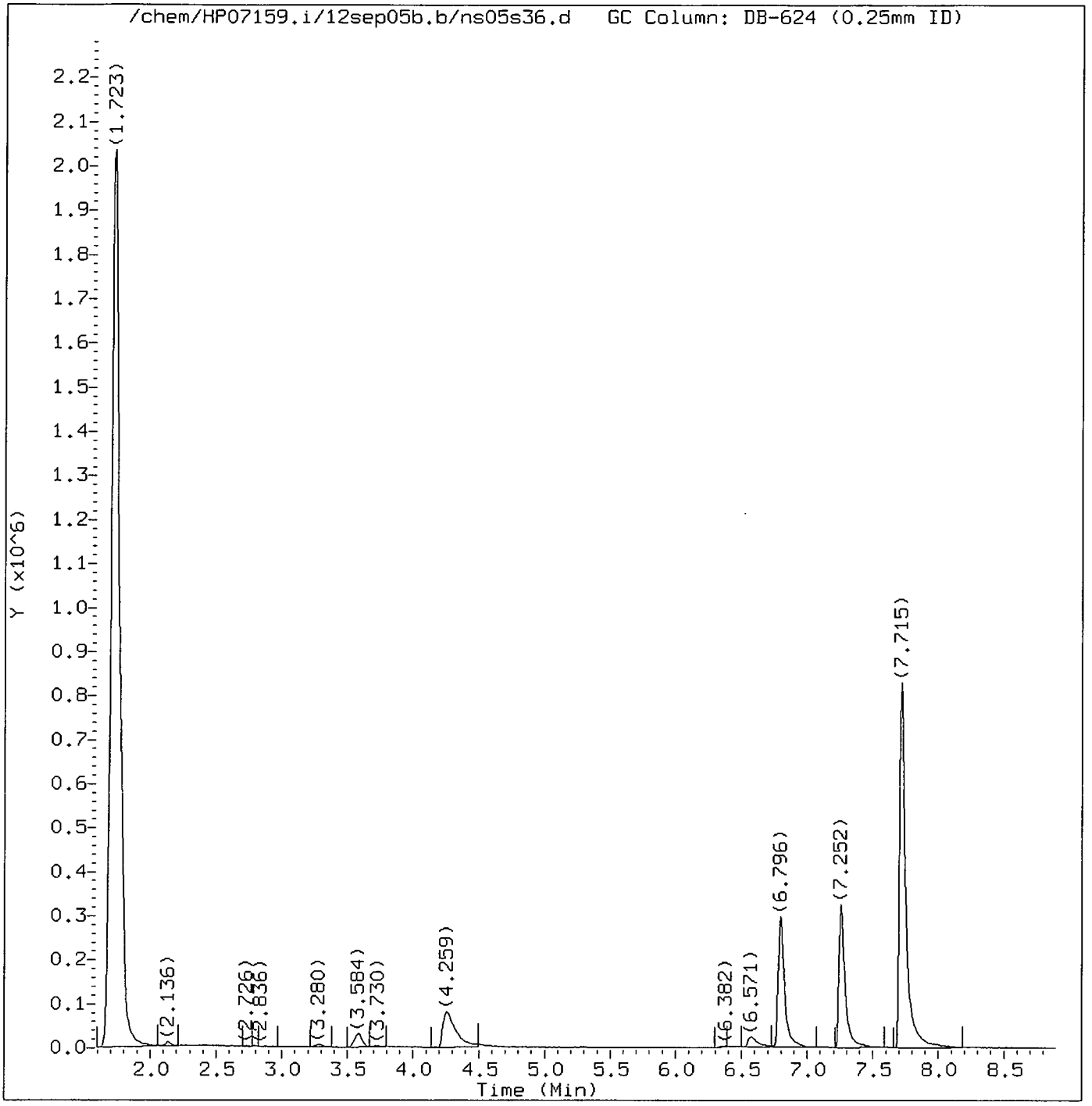
Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

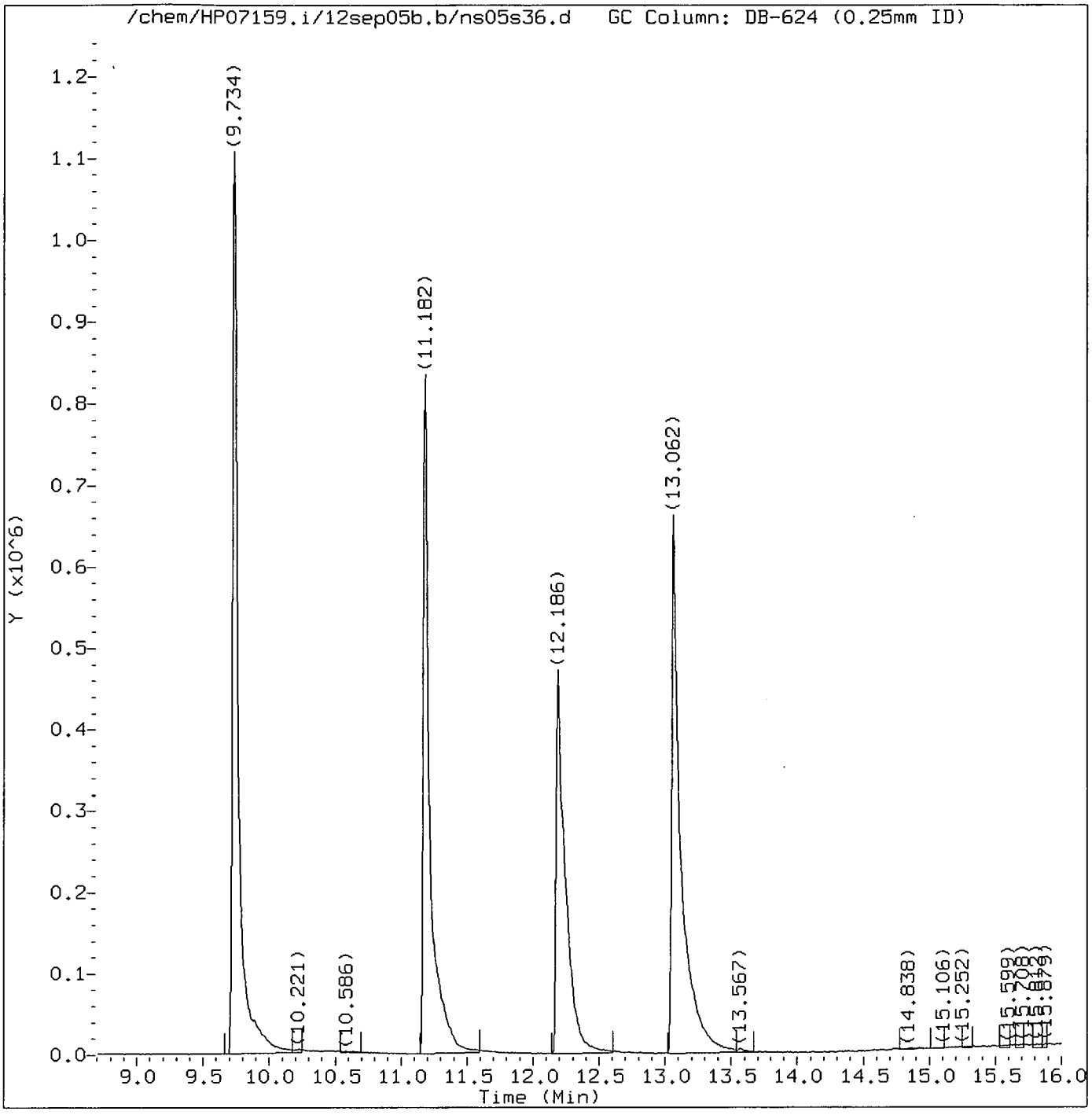
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s36.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:21 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:10 ers02237

Sample Name: PAT-9 Lab Sample ID: 6769187

Digitally signed by Emily R. Styer
on 09/05/2012 at 17:16.
Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s36.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:21 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:10 ers02237

Sample Name: PAT-9 Lab Sample ID: 6769187

Digitally signed by Emily R. Styer
on 09/05/2012 at 17:16.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s36.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:21 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:10 ers02237

Sample Name: PAT-9 Lab Sample ID: 6769187

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.578	96	7555	1.307
26)*t-Butyl Alcohol-d10	(4)	4.259	65	336169	250.000
51)$Dibromofluoromethane	(1)	6.796	113	325036	51.170
62)$1,2-Dichloroethane-d4	(1)	7.252	102	85997	50.618
70)*Fluorobenzene	(1)	7.715	96	1421023	50.000
86)$Toluene-d8	(2)	9.734	98	1353838	47.057
98)*Chlorobenzene-d5	(2)	11.182	117	1028312	50.000
114)$4-Bromofluorobenzene	(2)	12.186	95	496760	47.491
130)*1,4-Dichlorobenzene-d4	(3)	13.062	152	574669	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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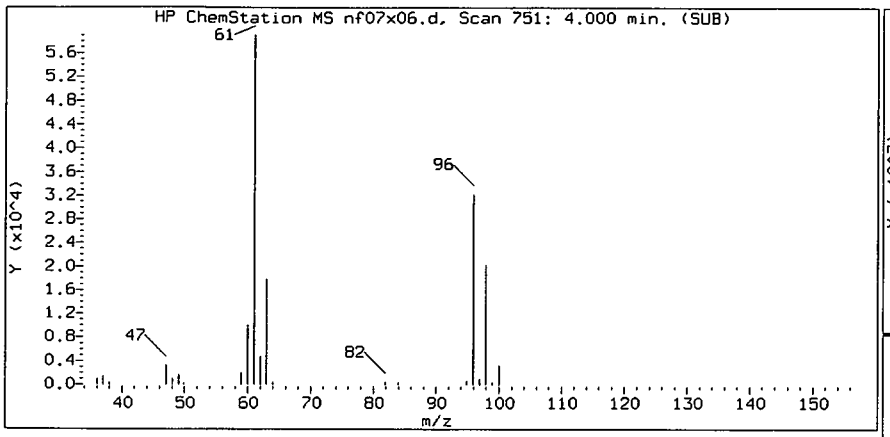
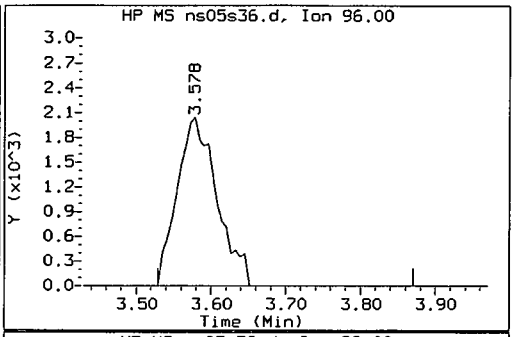
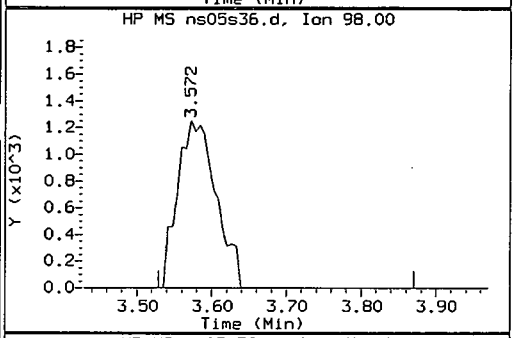
on 09/05/2012 at 17:16.
Target 3.5 esignature user ID: ers02237

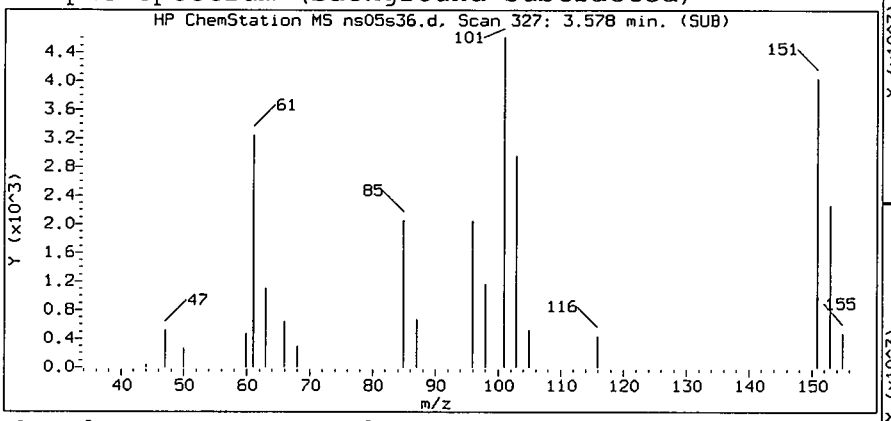
Reference Standard Spectrum for 1,1-Dichloroethene

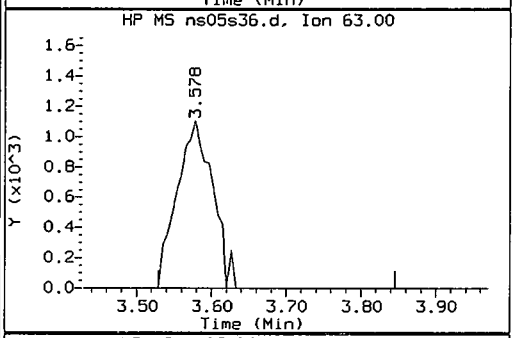




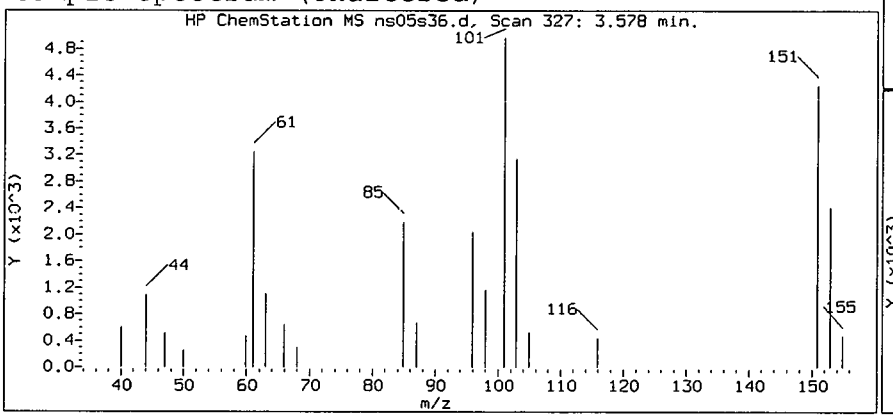


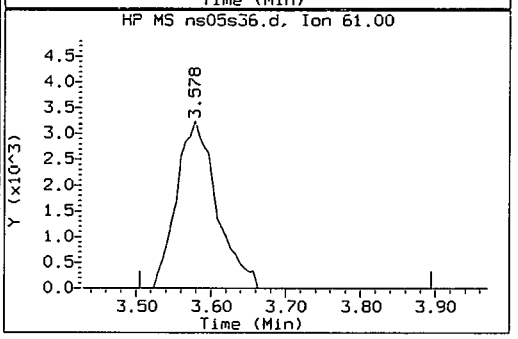
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s36.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:21 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:10 ers02237

Sample Name: PAT-9 Lab Sample ID: 6769187

Compound Number	: 16
Compound Name	: 1,1-Dichloroethene
Scan Number	: 327
Retention Time (minutes)	: 3.578
Relative Retention Time	:-0.00026
Quant Ion	: 96.00
Area (flag)	: 7555
On-Column Amount (ng)	: 1.3069

Digitally signed by Emily R. Styer on 09/05/2012 at 17:16.
Target 3.5 esignature user ID: ers02237

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT10

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769188

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s37.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	120	
67-64-1	Acetone	10	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	J
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	8	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT10

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769188

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s37.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-86-1	Bromobenzene		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT10

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769188

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s37.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT10

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769188

Data file: /chem/HP07159.i/12sep05b.b/ns05s37.d
Injection date and time: **05-SEP-2012 15:45**
Data file Sample Info. Line: PAT10;6769188;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.256	(-0.019)	438	65	322974	(-15)	250.00	
70) Fluorobenzene	7.718	(-0.007)	1007	96	1416412	(-6)	50.00	
98) Chlorobenzene-d5	11.179	(-0.013)	1576	117	1022092	(-4)	50.00	
130) 1,4-Dichlorobenzene-d4	13.059	(-0.031)	1885	152	576032	(-9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.799	(-0.001)	113	330253	52.161	104%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.255	(0.000)	102	86364	50.999	102%		77 - 113
86) Toluene-d8	(2)	9.731	(0.000)	98	1356259	47.428	95%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.183	(-0.001)	95	492320	47.353	95%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.575	(0.000)	96	672059	116.638	116.64			0.8	5
19) Acetone	(1)	3.708	(-0.011)	58	11822	9.946	9.95		J	6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)	5.278	(-0.002)	63	58786	4.642	4.64		J	1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)	6.324	(-0.023)	43	44262MA	7.891	7.89		J	3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

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PAT10 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6769188

Data file: /chem/HP07159.i/12sep05b.b/ns05s37.d Injection date and time: **05-SEP-2012 15:45**
Data file Sample Info. Line: PAT10;6769188;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

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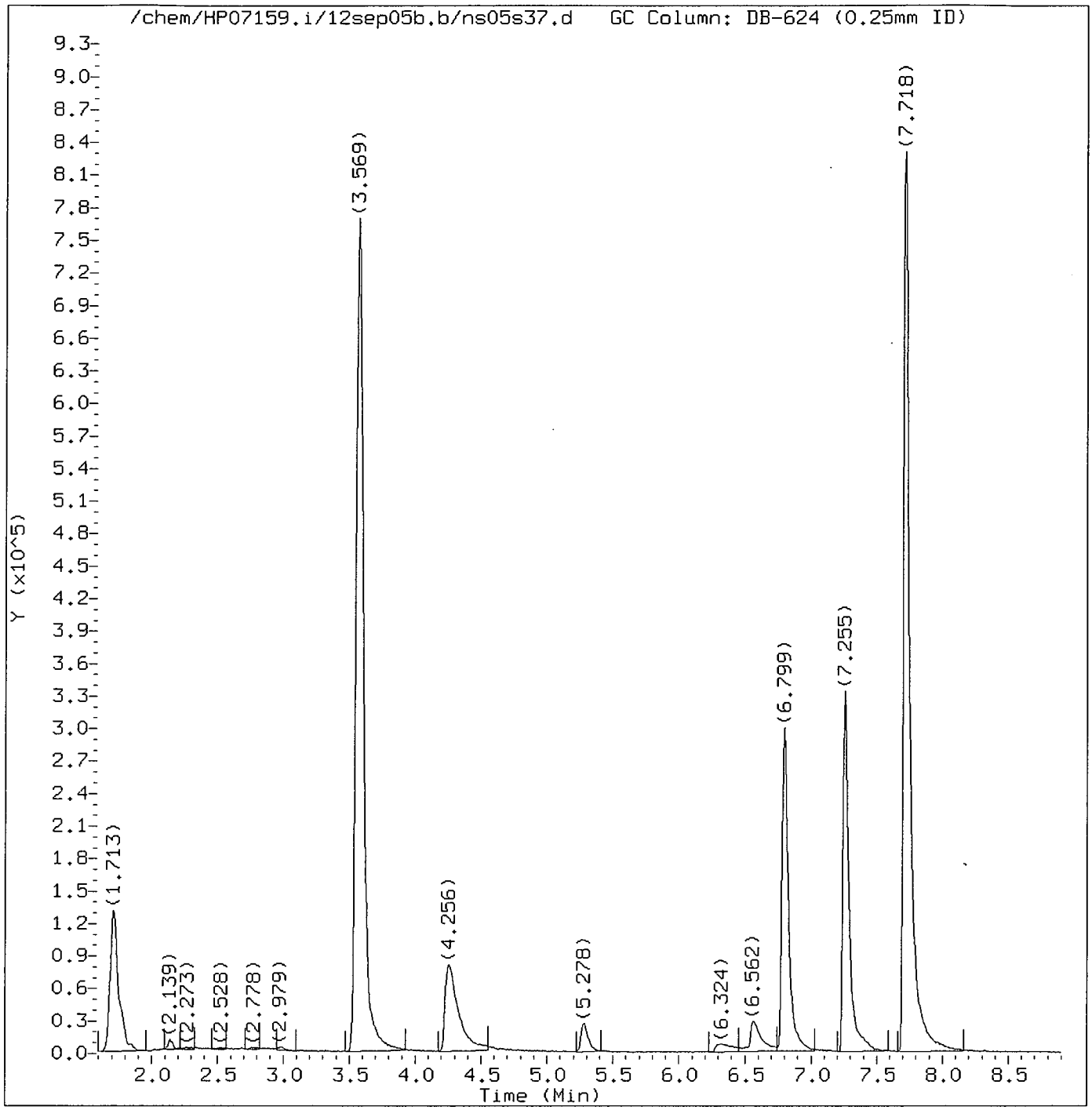
Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

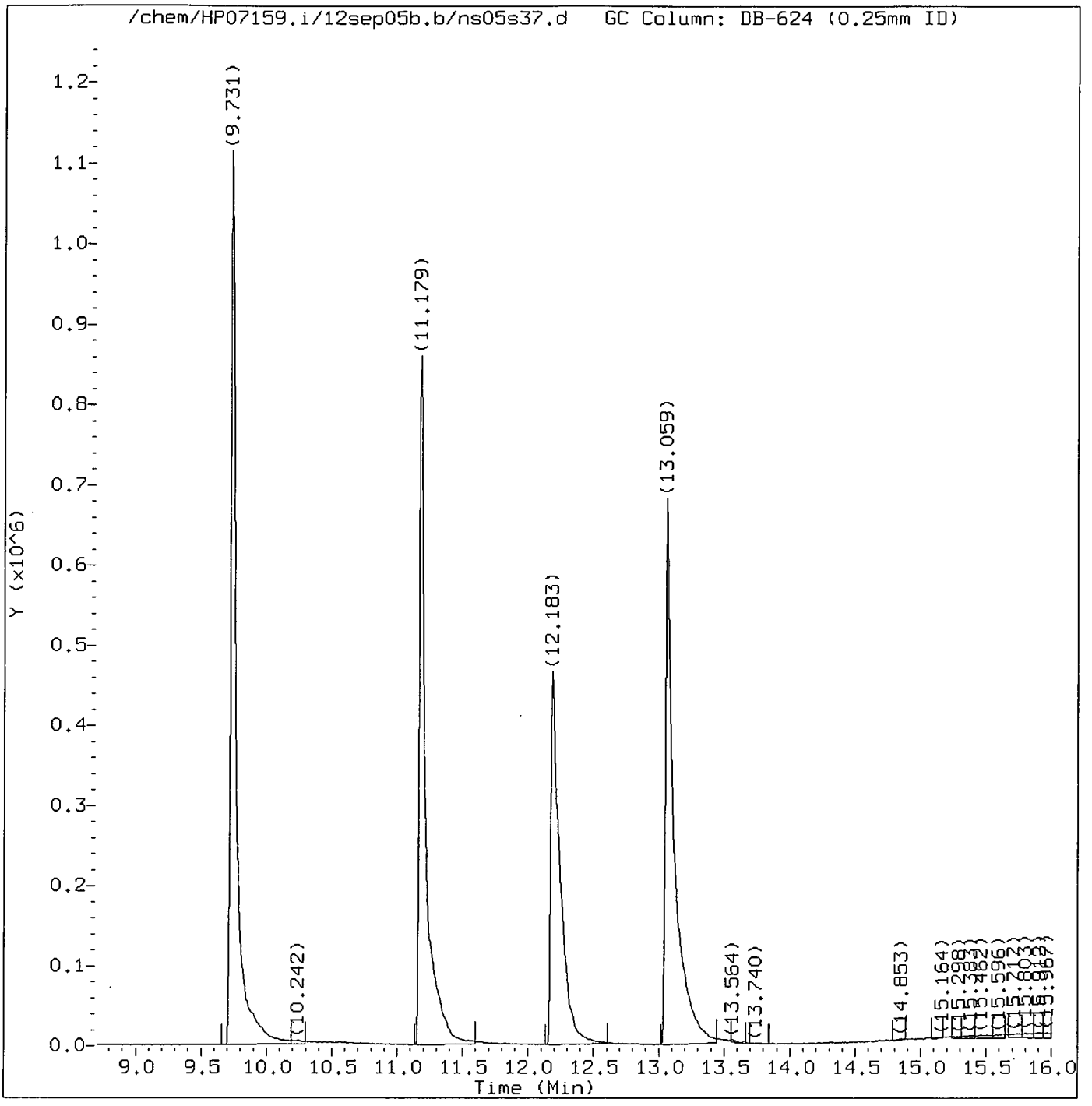
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s37.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:45 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT10 Lab Sample ID: 6769188

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s37.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:45 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT10 Lab Sample ID: 6769188

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s37.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:45 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT10 Lab Sample ID: 6769188

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.575	96	672059	116.638
19) Acetone	(1)	3.709	58	11822	9.946
26)*t-Butyl Alcohol-d10	(4)	4.256	65	322974	250.000
36) 1,1-Dichloroethane	(1)	5.278	63	58786	4.642
42) 2-Butanone	(1)	6.324	43	44262MA	7.891
51)$Dibromofluoromethane	(1)	6.799	113	330253	52.161
62)$1,2-Dichloroethane-d4	(1)	7.255	102	86364	50.999
70)*Fluorobenzene	(1)	7.718	96	1416412	50.000
86)$Toluene-d8	(2)	9.731	98	1356259	47.428
98)*Chlorobenzene-d5	(2)	11.179	117	1022092	50.000
114)$4-Bromofluorobenzene	(2)	12.183	95	492320	47.353
130)*1,4-Dichlorobenzene-d4	(3)	13.059	152	576032	50.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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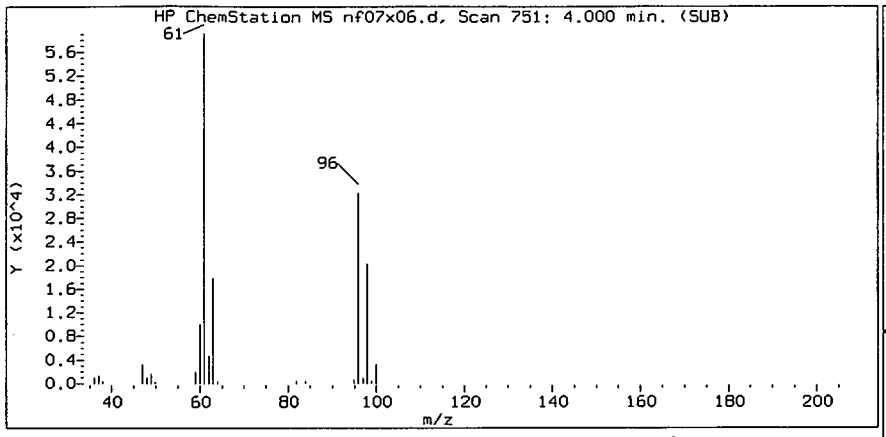
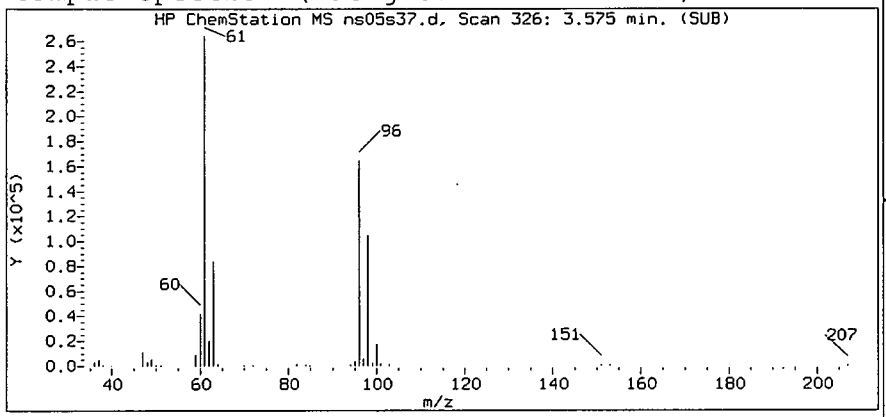
on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

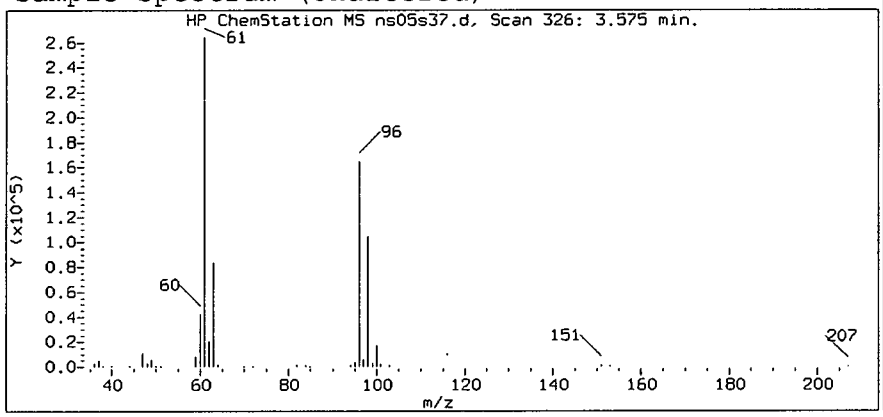
Reference Standard Spectrum for 1,1-Dichloroethene

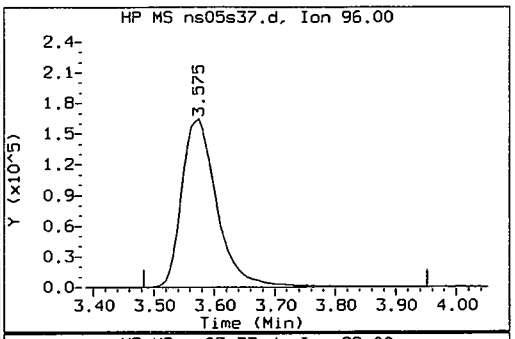


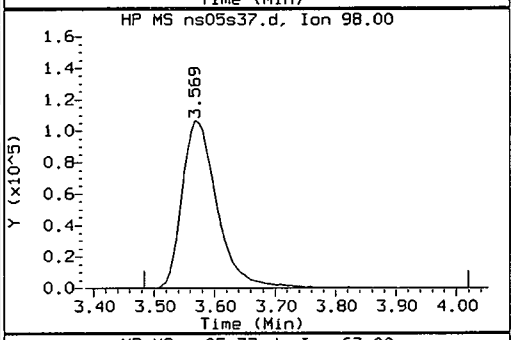
Sample Spectrum (Background Subtracted)

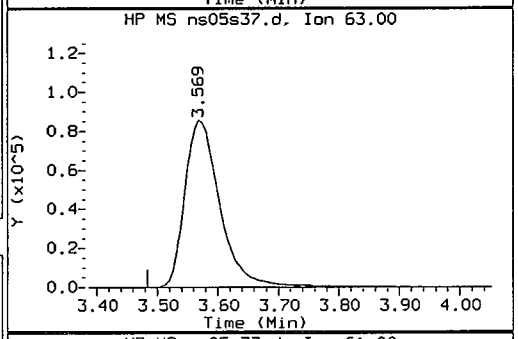


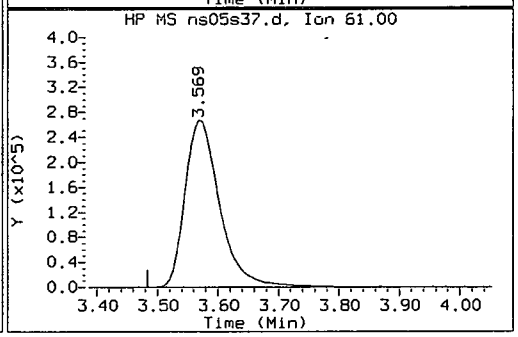
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s37.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:45 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT10 Lab Sample ID: 6769188

Compound Number	: 16
Compound Name	: 1,1-Dichloroethene
Scan Number	: 326
Retention Time (minutes)	: 3.575
Relative Retention Time	: 0.00034
Quant Ion	: 96.00
Area (flag)	: 672059
On-Column Amount (ng)	: 116.6385

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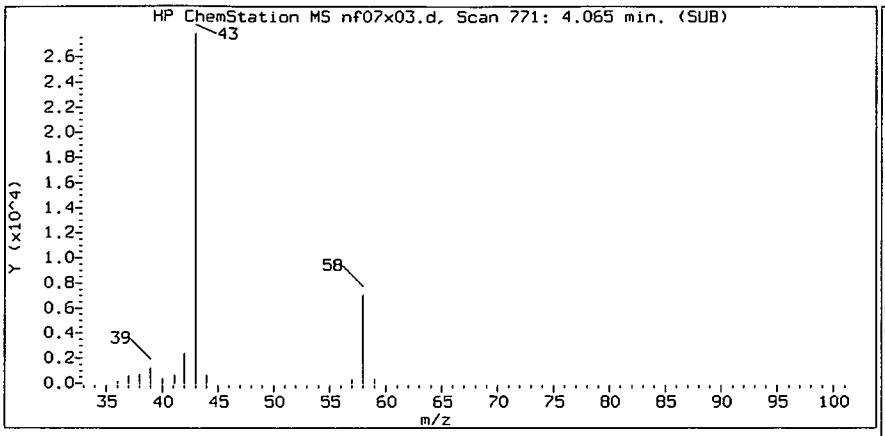
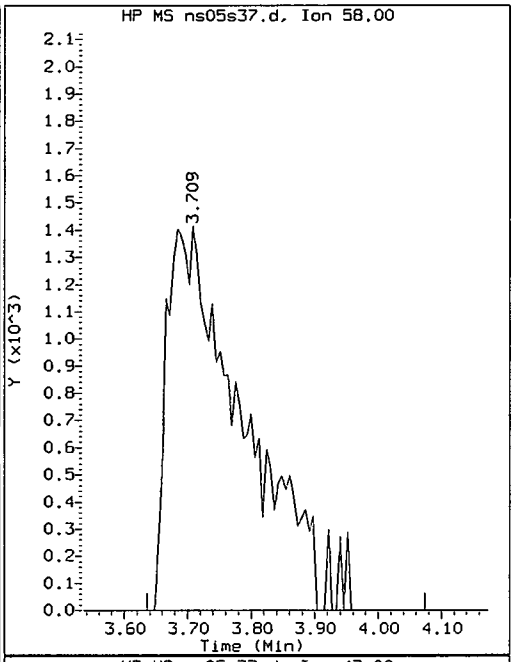
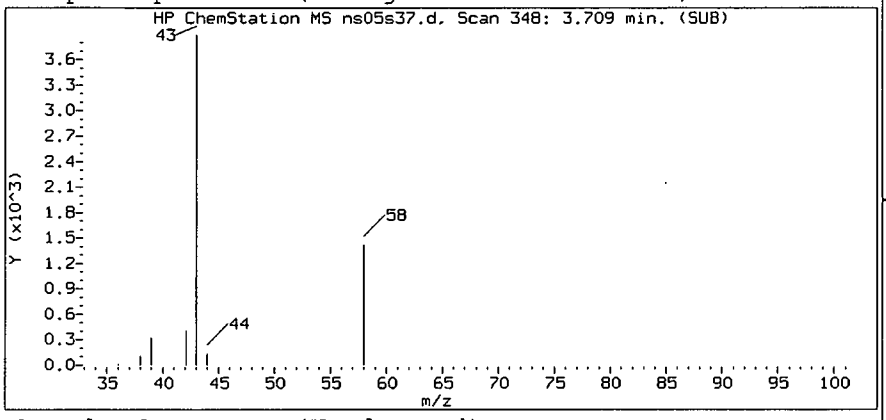
Target 3.5 esignature user ID: sag03174

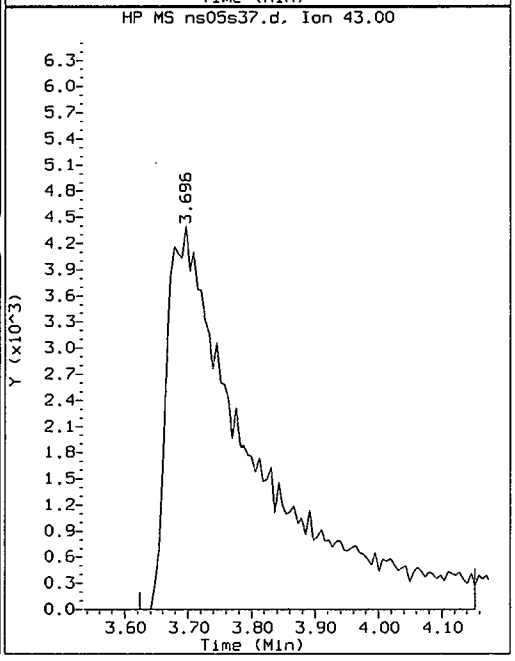
Reference Standard Spectrum for Acetone



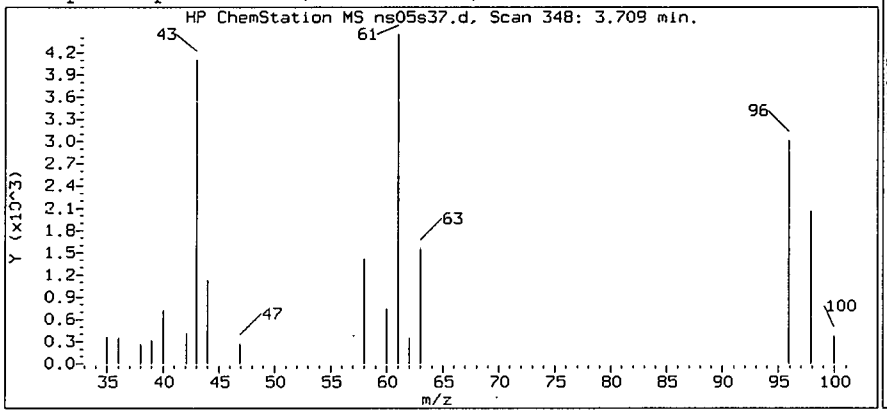


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s37.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:45 Analyst ID: ERS02237

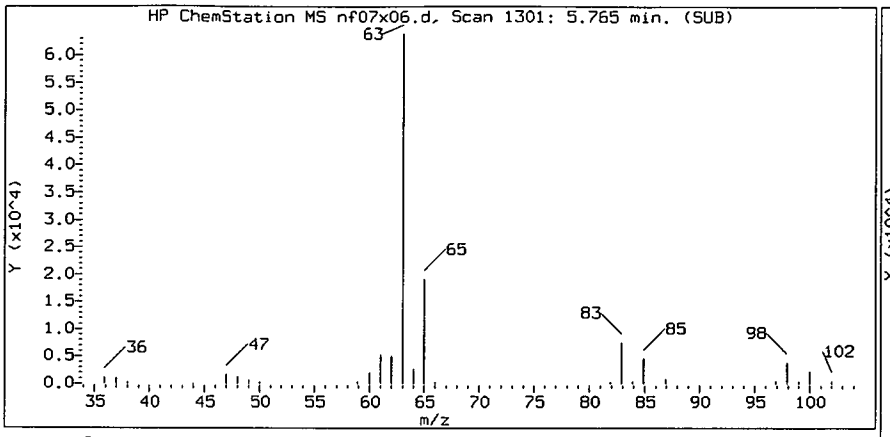
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

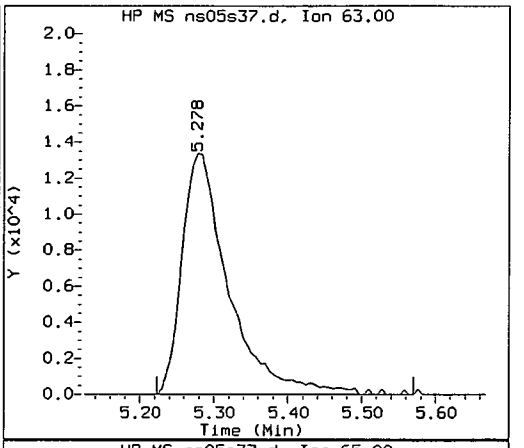
Sample Name: PAT10 Lab Sample ID: 6769188

Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 348
Retention Time (minutes)	: 3.709
Relative Retention Time	:-0.01149
Quant Ion	: 58.00
Area (flag)	: 11822
On-Column Amount (ng)	: 9.9457

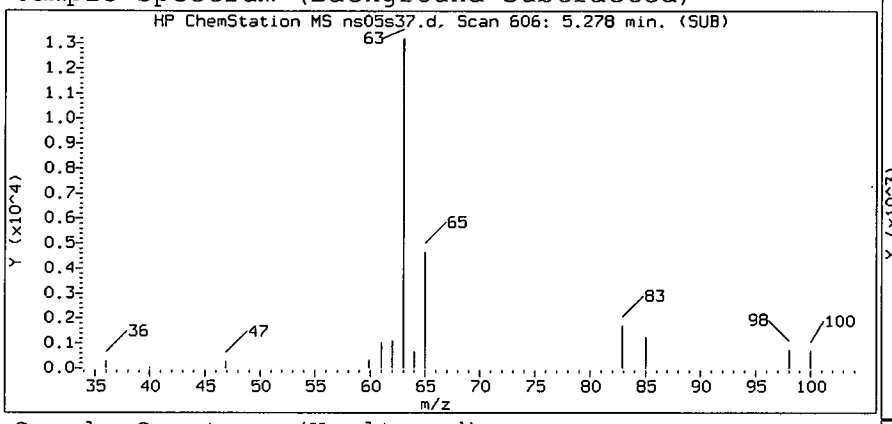
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

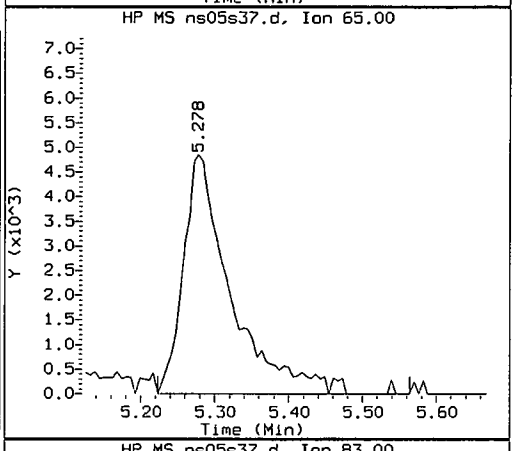
Reference Standard Spectrum for 1,1-Dichloroethane



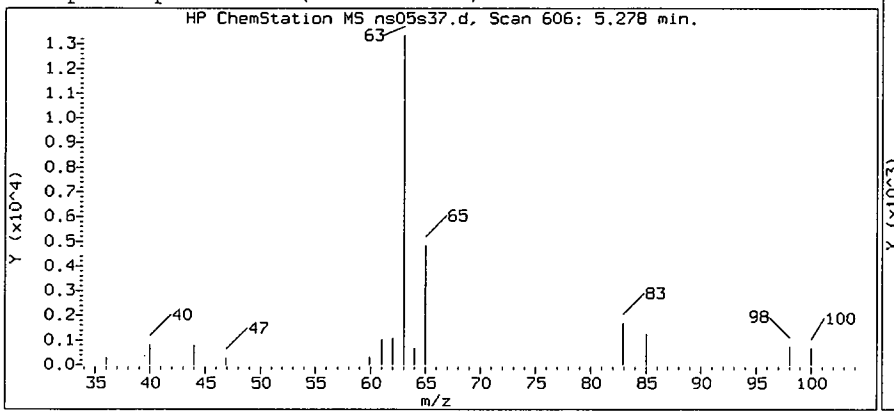


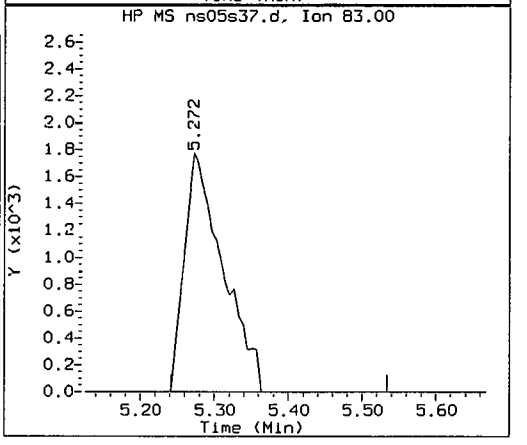
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s37.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:45 Analyst ID: ERS02237

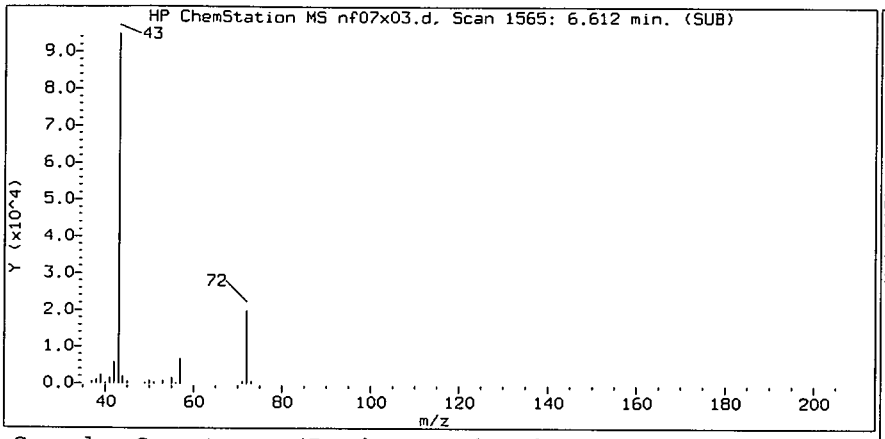
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

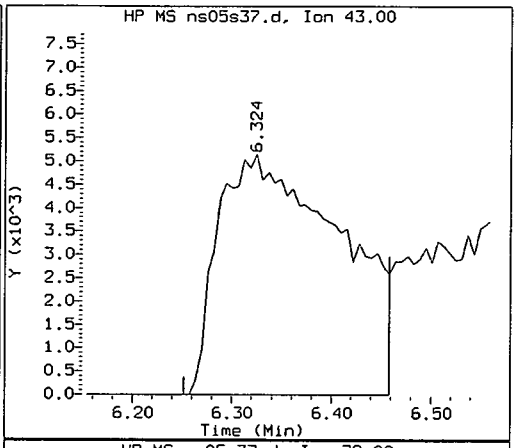
Sample Name: PAT10 Lab Sample ID: 6769188

Compound Number	: 36
Compound Name	: 1,1-Dichloroethane
Scan Number	: 606
Retention Time (minutes)	: 5.278
Relative Retention Time	:-0.00263
Quant Ion	: 63.00
Area (flag)	: 58786
On-Column Amount (ng)	: 4.6423

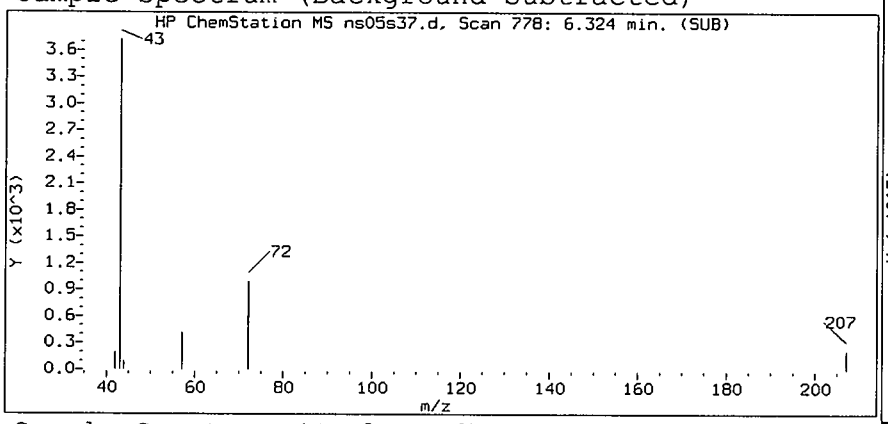
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

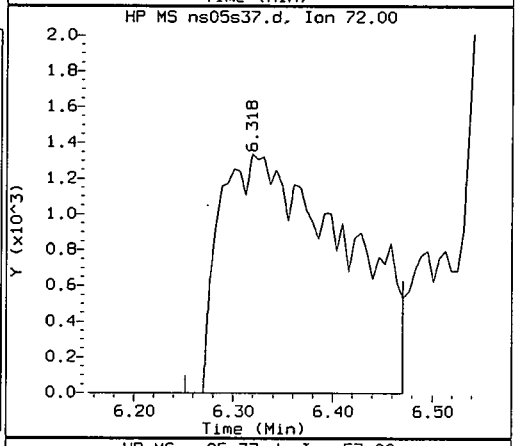
Reference Standard Spectrum for 2-Butanone



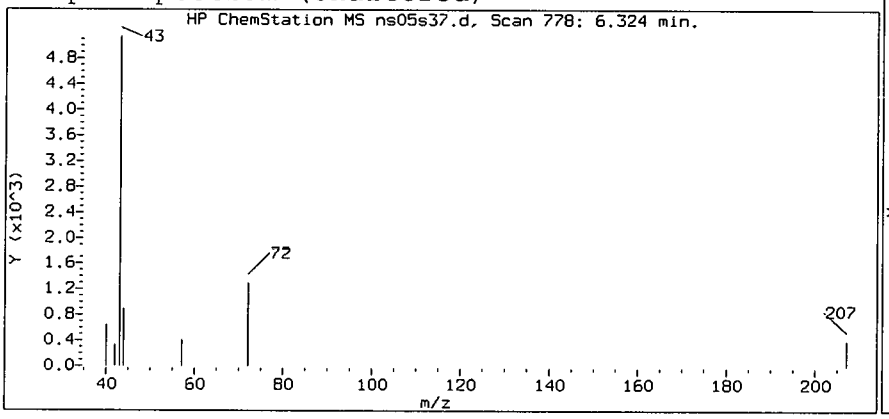


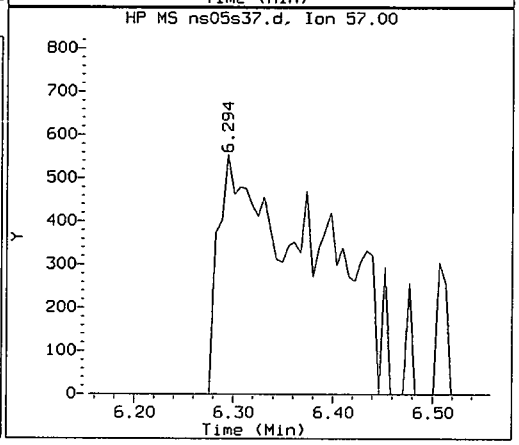
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s37.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:45 Analyst ID: ERS02237

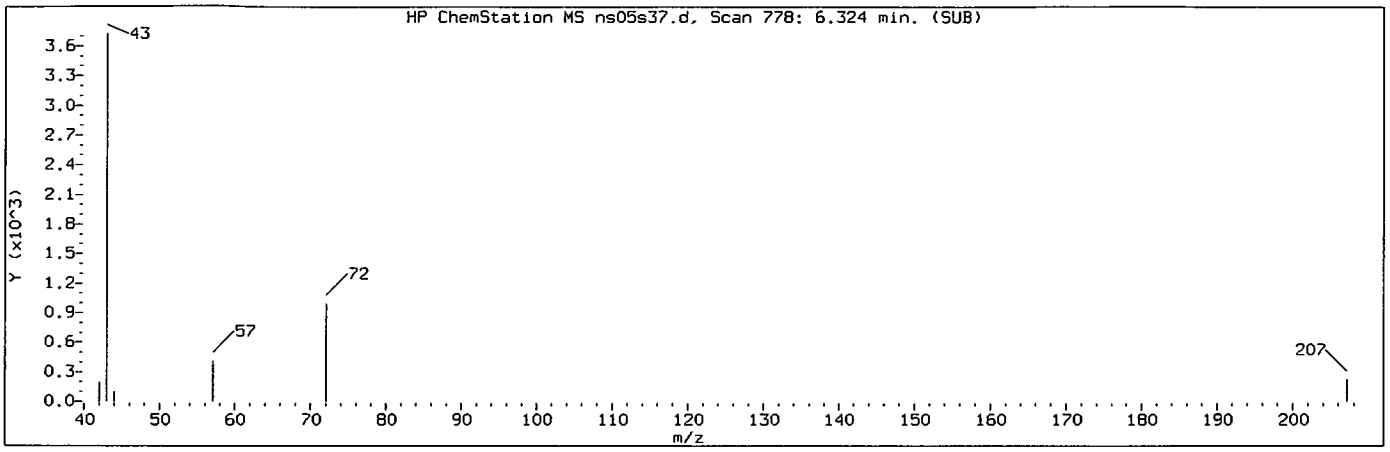
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT10 Lab Sample ID: 6769188

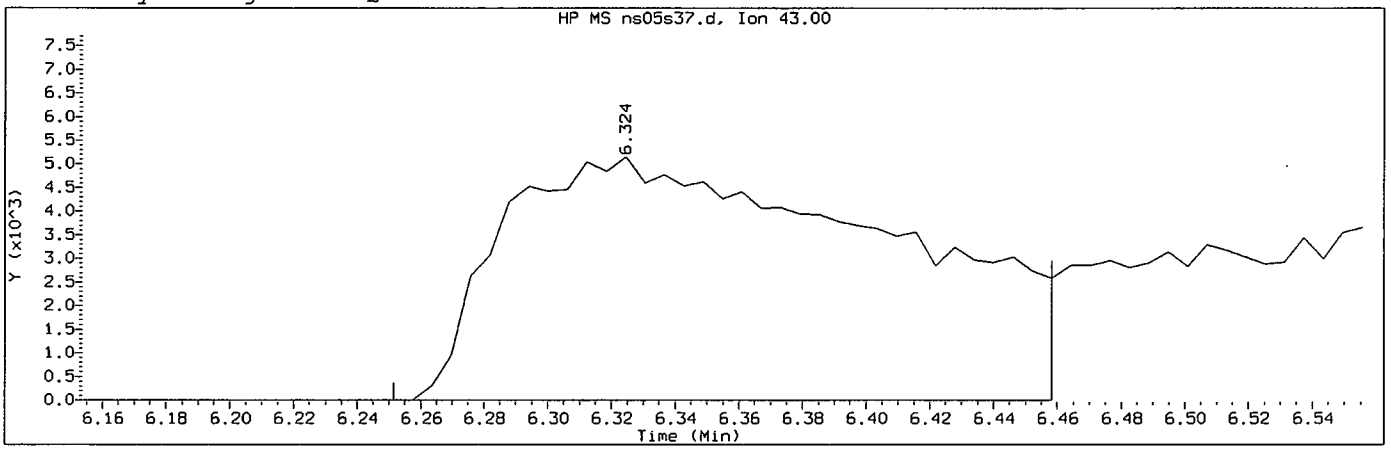
Compound Number	: 42
Compound Name	: 2-Butanone
Scan Number	: 778
Retention Time (minutes)	: 6.324
Relative Retention Time	:-0.02303
Quant Ion	: 43.00
Area (flag)	: 44262AM
On-Column Amount (ng)	: 7.8907

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s37.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:45 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT10 Lab Sample ID: 6769188

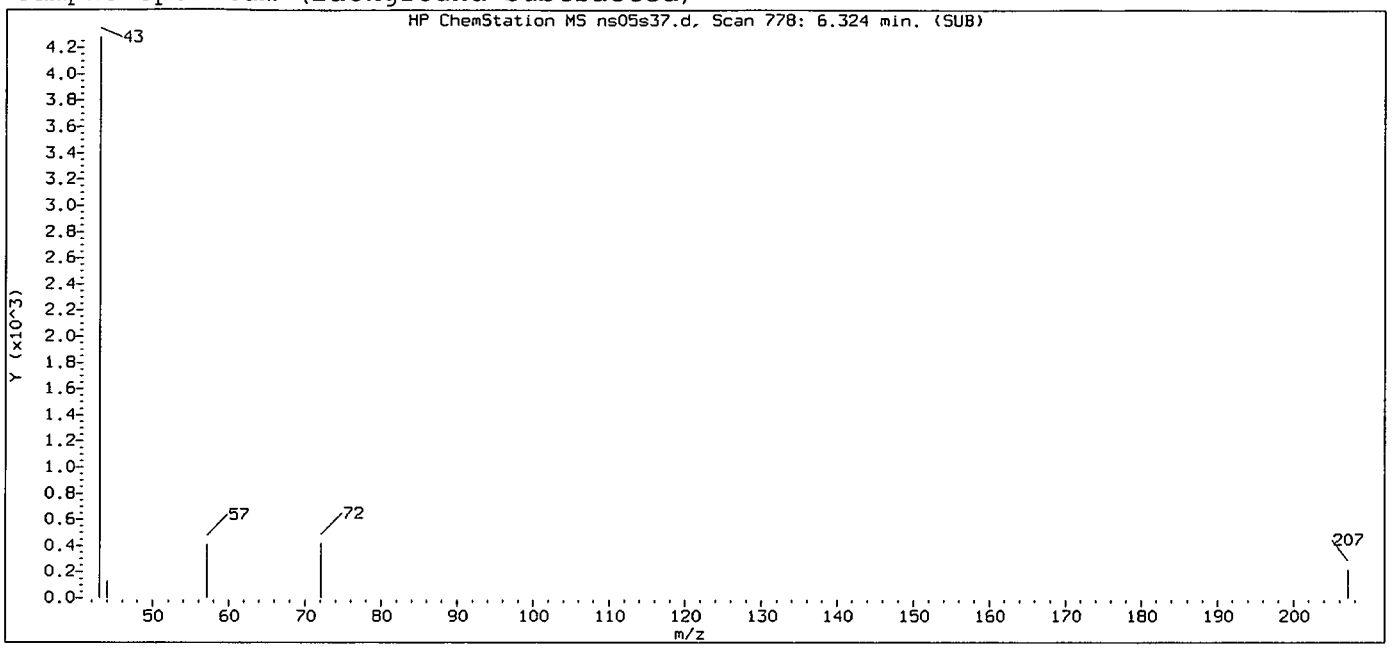
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 778		
Retention Time (minutes)	: 6.324		
Quant Ion	: 43.00		
Area (flag)	: 44262AM		
On-Column Amount (ng)	: 7.8907		
Integration start scan	: 765	Integration stop scan:	799
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

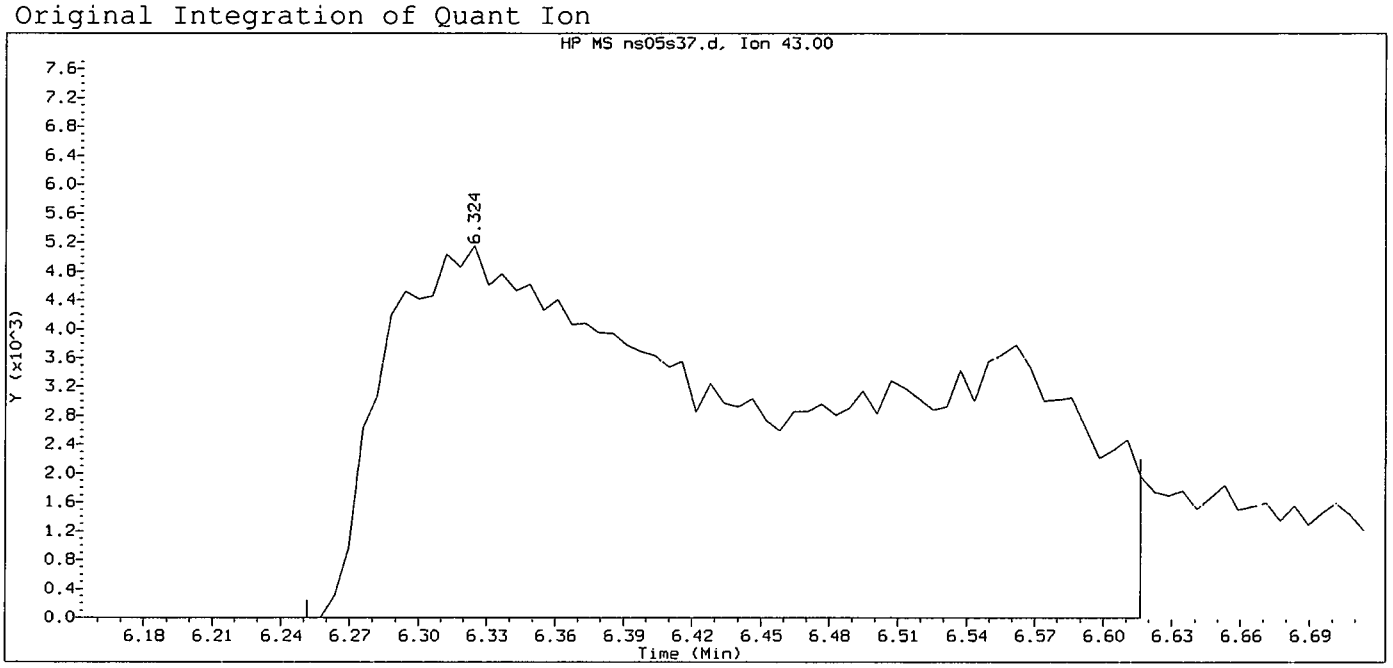
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:29. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s37.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 15:45 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 16:05 Automation

Sample Name: PAT10 Lab Sample ID: 6769188

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 778		
Retention Time (minutes)	: 6.324		
Quant Ion	: 43.00		
Area	: 72065		
On-column Amount (ng)	: 12.8469		
Integration start scan	: 765	Integration stop scan:	825
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:29.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-8

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769189

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s38.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	170	
67-64-1	Acetone	20	U
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	11	
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	10	U
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	52	
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-8

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769189

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s38.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-86-1	Bromobenzene		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-8

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769189

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s38.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT-8

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769189

Data file: /chem/HP07159.i/12sep05b.b/ns05s38.d
Injection date and time: **05-SEP-2012 16:08**
Data file Sample Info. Line: PAT-8;6769189;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 17:13 ers02237

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.254	(-0.016)	438	65	322075	(-15)	250.00	
70) Fluorobenzene	7.715	(-0.004)	1007	96	1408724	(-7)	50.00	
98) Chlorobenzene-d5	11.177	(-0.010)	1576	117	1010000	(-5)	50.00	
130) 1,4-Dichlorobenzene-d4	13.063	(-0.035)	1886	152	572869	(-9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.797	(-0.001)	113	326446	51.841	104%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.259	(-0.001)	102	85272	50.629	101%		77 - 113
86) Toluene-d8	(2)	9.735	(0.000)	98	1339631	47.407	95%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.187	(-0.002)	95	492657	47.953	96%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.572	(0.000)	96	958329	167.229	167.23			0.8	5
19) Acetone	(1)				Not Detected					6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)	5.276	(-0.002)	63	132653	10.533	10.53			1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)				Not Detected					3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)	6.827	(-0.000)	97	505700	51.741	51.74			0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

Digitally signed by Emily R. Styer on 09/05/2012 at 17:16. Target 3.5 esignature user ID: ers02237

PAT-8

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769189

Data file: /chem/HP07159.i/12sep05b.b/ns05s38.d
Injection date and time: **05-SEP-2012 16:08**
Data file Sample Info. Line: PAT-8;6769189;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 17:13 ers02237

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

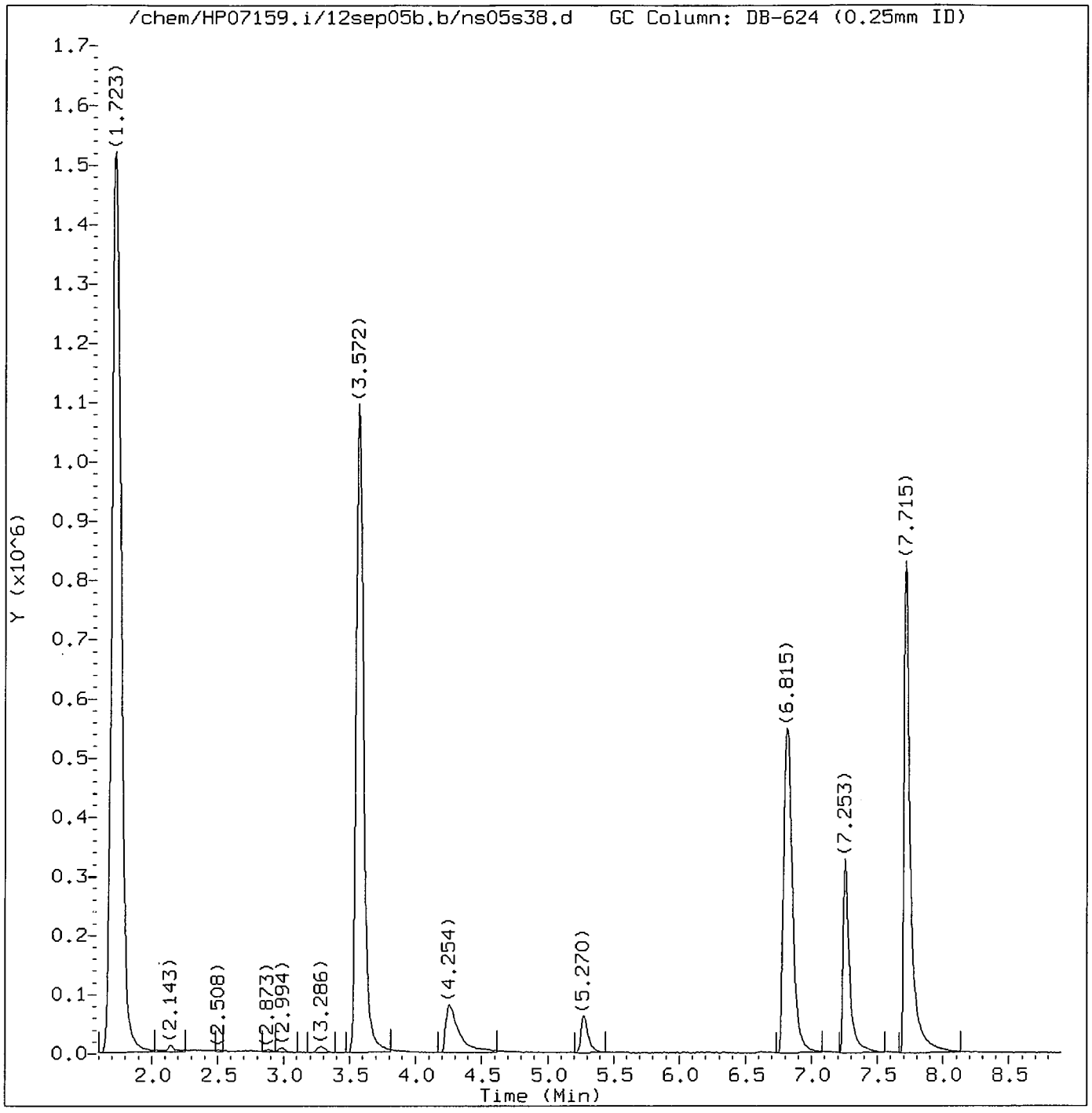
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Emily R. Styer on 09/05/2012 at 17:16. Target 3.5 esignature user ID: ers02237

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

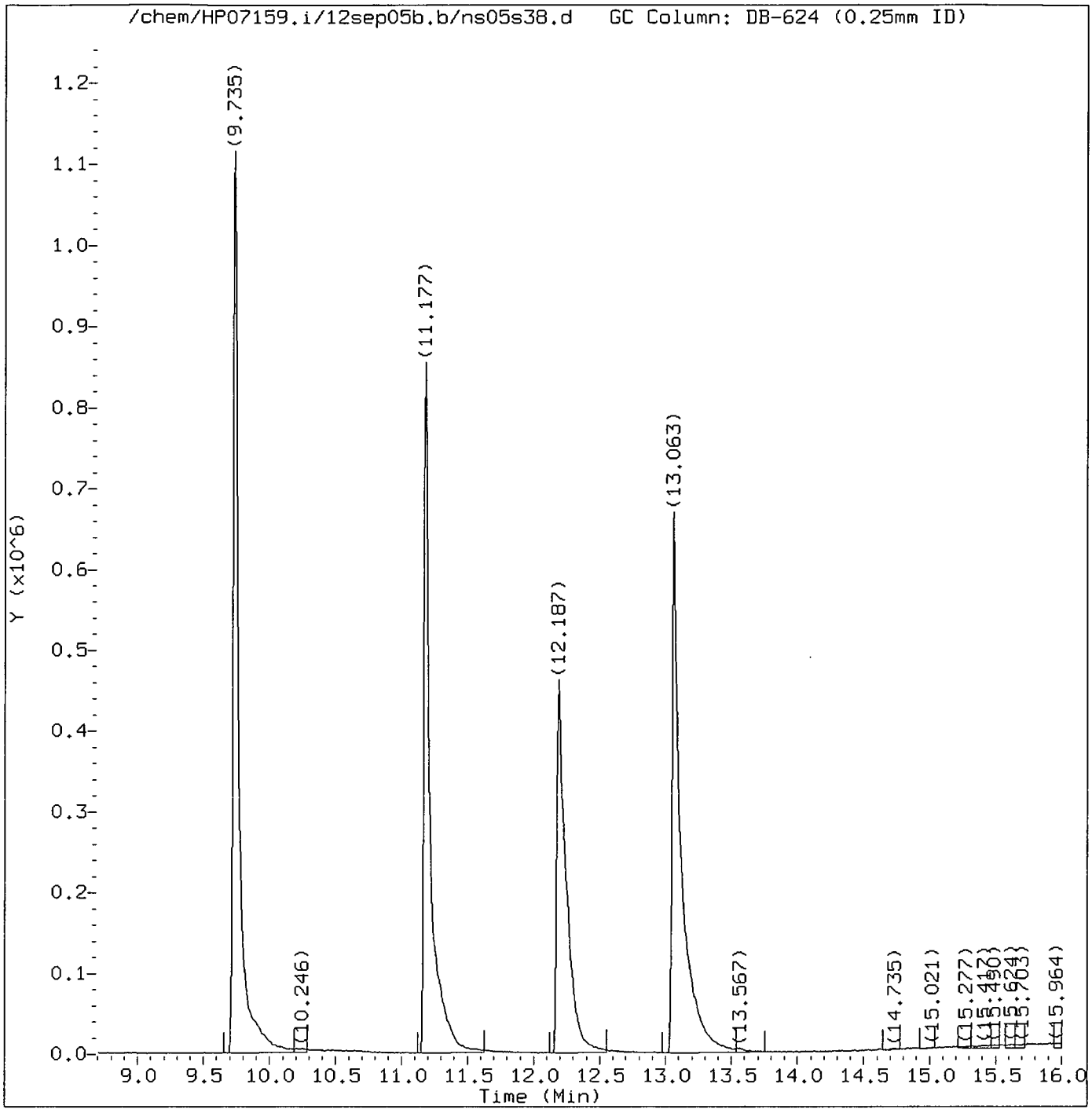
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s38.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:08 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:13 ers02237

Sample Name: PAT-8 Lab Sample ID: 6769189

Digitally signed by Emily R. Styer
on 09/05/2012 at 17:16.
Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s38.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:08 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:13 ers02237

Sample Name: PAT-8 Lab Sample ID: 6769189

Digitally signed by Emily R. Styer
on 09/05/2012 at 17:16.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s38.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:08 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:13 ers02237

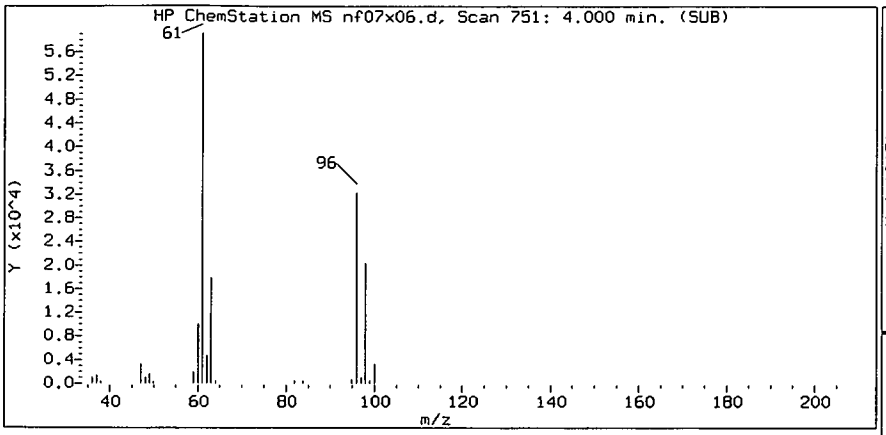
Sample Name: PAT-8 Lab Sample ID: 6769189

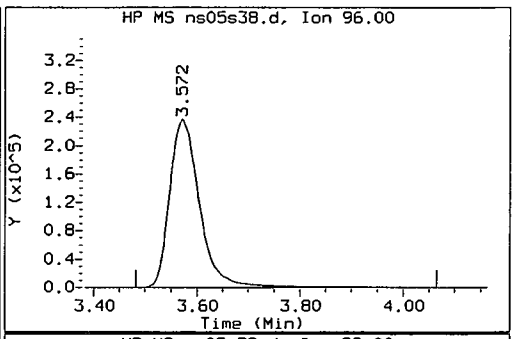
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.572	96	958329	167.229
26)*t-Butyl Alcohol-d10	(4)	4.254	65	322075	250.000
36) 1,1-Dichloroethane	(1)	5.276	63	132653	10.533
51)$Dibromofluoromethane	(1)	6.797	113	326446	51.841
53) 1,1,1-Trichloroethane	(1)	6.827	97	505700	51.741
62)$1,2-Dichloroethane-d4	(1)	7.259	102	85272	50.629
70)*Fluorobenzene	(1)	7.715	96	1408724	50.000
86)$Toluene-d8	(2)	9.735	98	1339631	47.407
98)*Chlorobenzene-d5	(2)	11.177	117	1010000	50.000
114)$4-Bromofluorobenzene	(2)	12.187	95	492657	47.953
130)*1,4-Dichlorobenzene-d4	(3)	13.063	152	572869	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

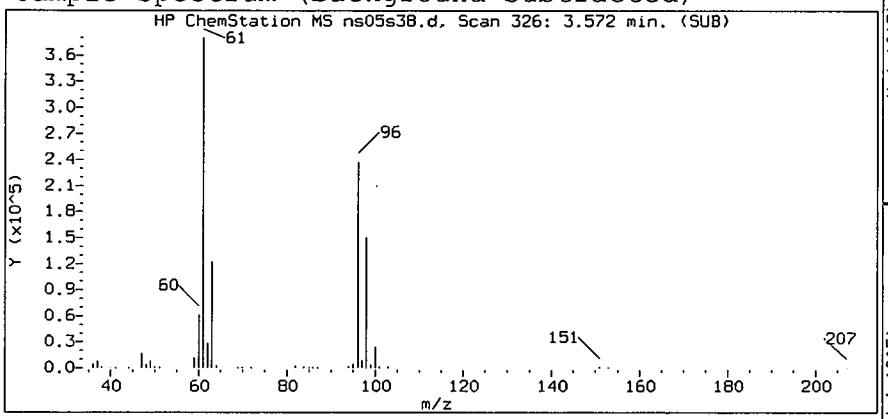
Digitally signed by Emily R. Styer
on 09/05/2012 at 17:16.
Target 3.5 esignature user ID: ers02237

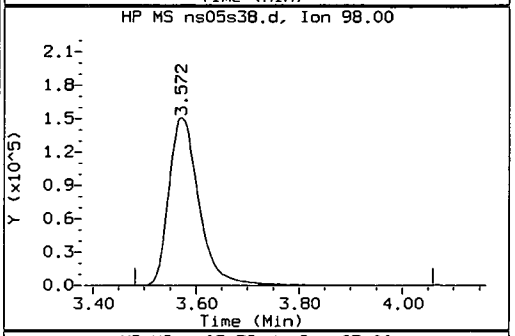
Reference Standard Spectrum for 1,1-Dichloroethene

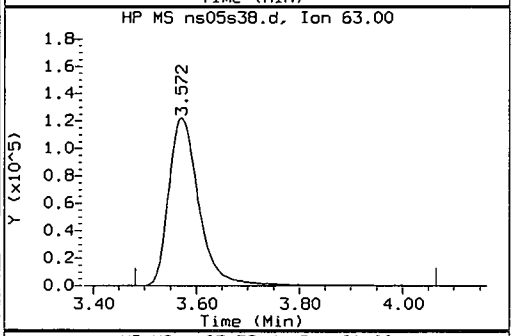




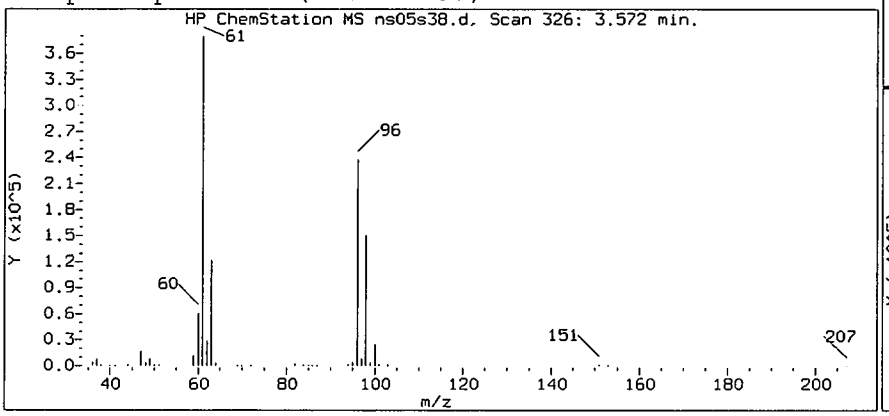
Sample Spectrum (Background Subtracted)

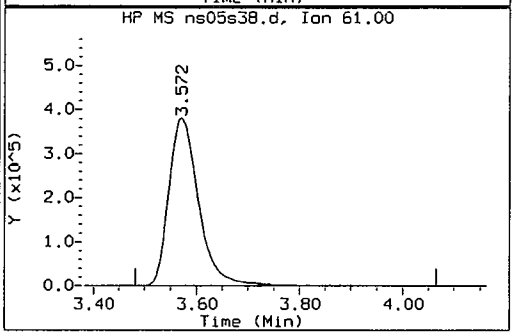






Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s38.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:08 Analyst ID: ERS02237

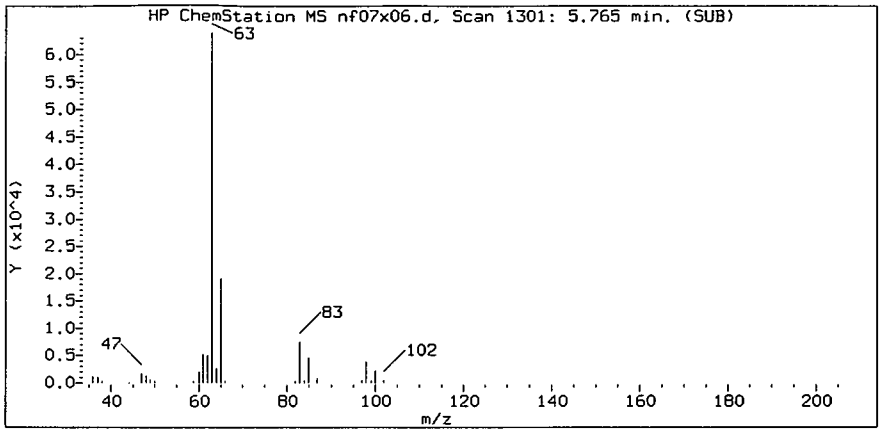
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:13 ers02237

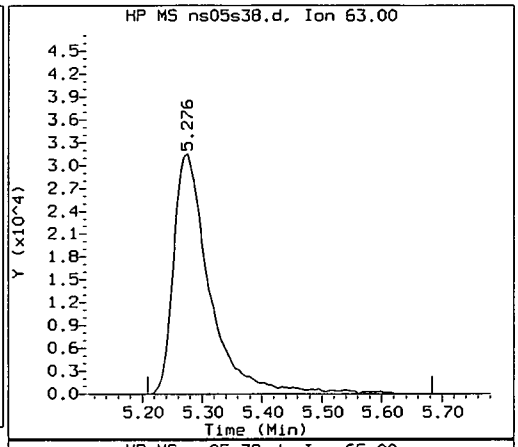
Sample Name: PAT-8 Lab Sample ID: 6769189

Compound Number	: 16
Compound Name	: 1,1-Dichloroethene
Scan Number	: 326
Retention Time (minutes)	: 3.572
Relative Retention Time	: 0.00050
Quant Ion	: 96.00
Area (flag)	: 958329
On-Column Amount (ng)	: 167.2294

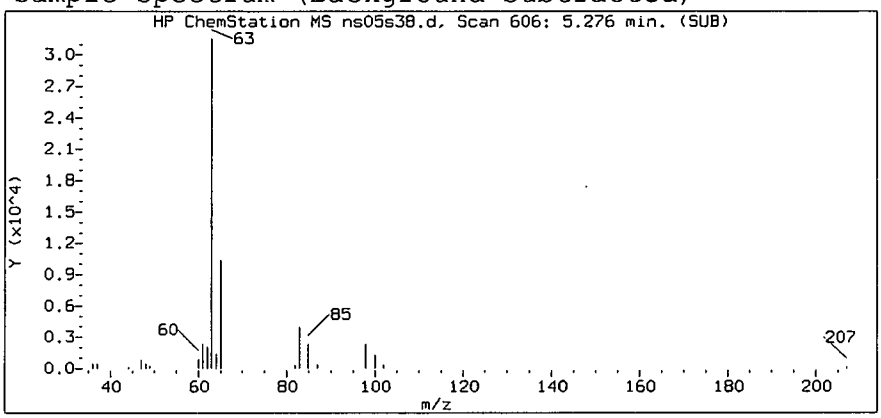
Digitally signed by Emily R. Styer on 09/05/2012 at 17:16.
Target 3.5 esignature user ID: ers02237

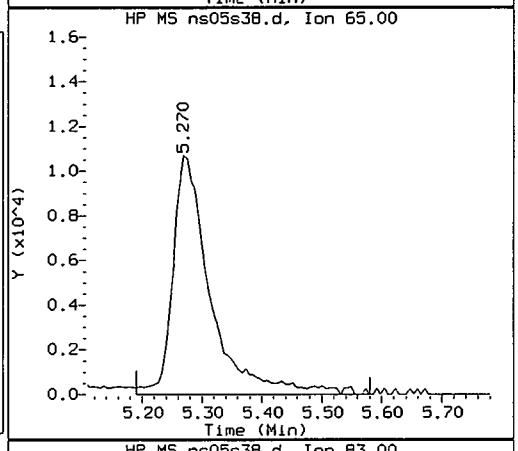
Reference Standard Spectrum for 1,1-Dichloroethane



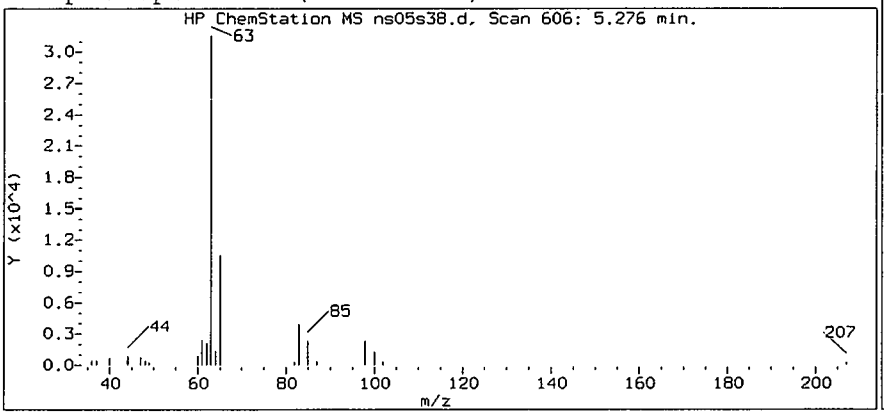


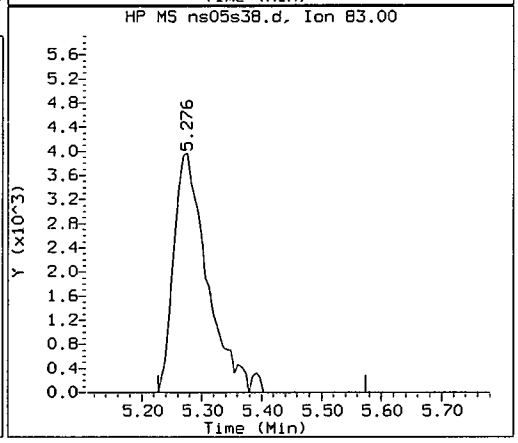
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s38.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:08 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:13 ers02237

Sample Name: PAT-8 Lab Sample ID: 6769189

Compound Number	: 36
Compound Name	: 1,1-Dichloroethane
Scan Number	: 606
Retention Time (minutes)	: 5.276
Relative Retention Time	:-0.00254
Quant Ion	: 63.00
Area (flag)	: 132653
On-Column Amount (ng)	: 10.5327

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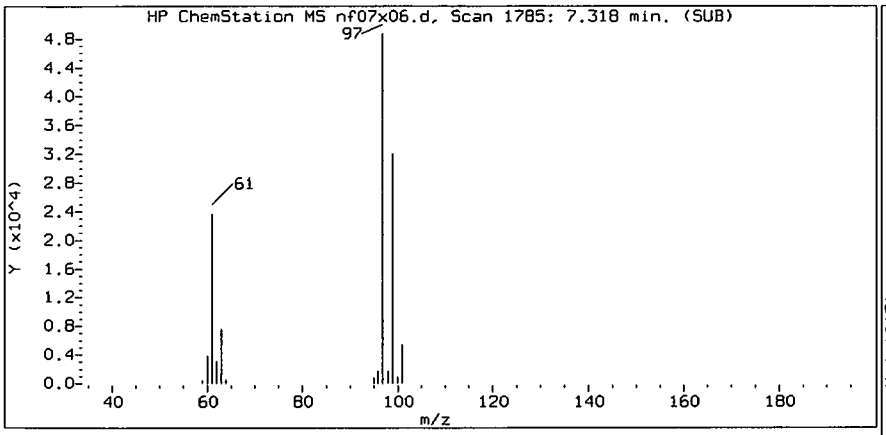
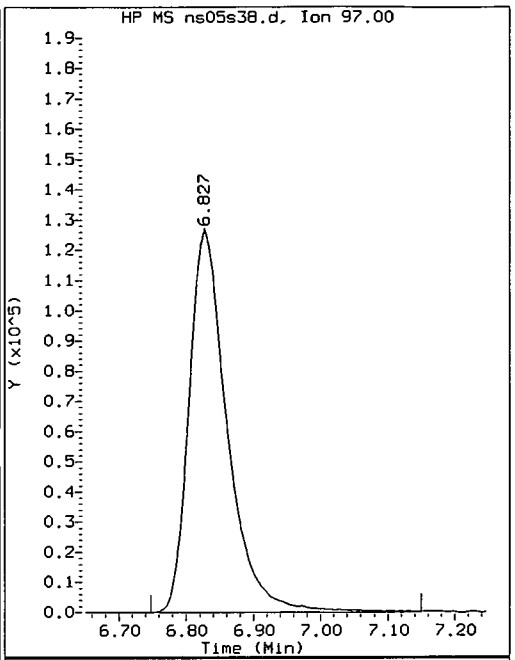
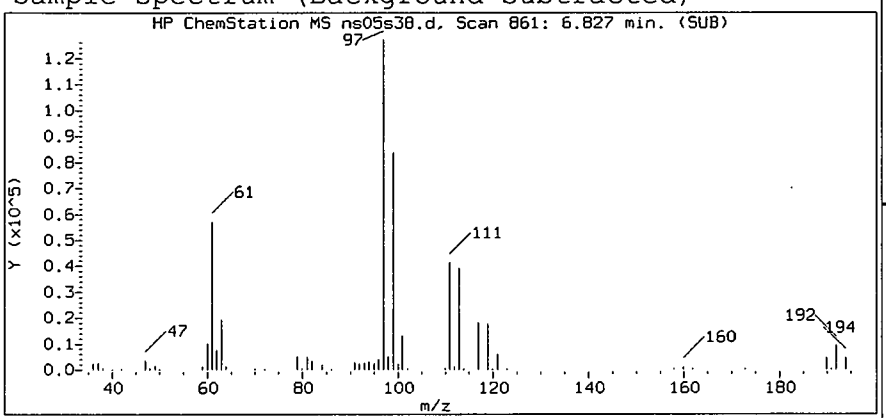
Target 3.5 esignature user ID: ers02237

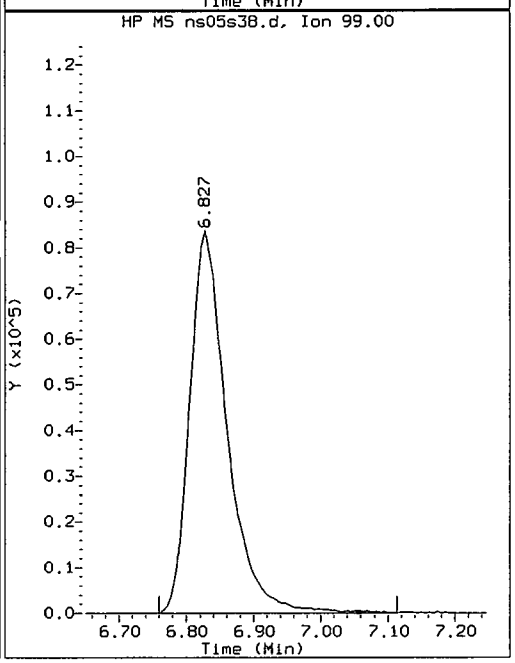
Reference Standard Spectrum for 1,1,1-Trichloroethane



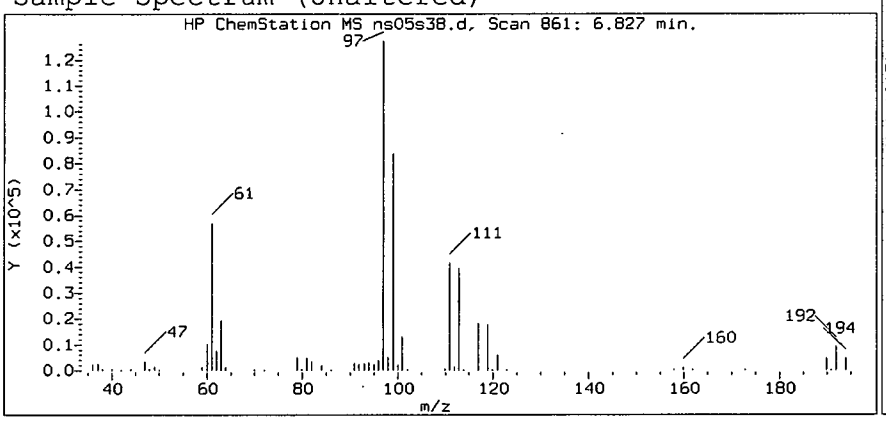


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s38.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:08 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:13 ers02237

Sample Name: PAT-8 Lab Sample ID: 6769189

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 861
Retention Time (minutes)	: 6.827
Relative Retention Time	:-0.00006
Quant Ion	: 97.00
Area (flag)	: 505700
On-Column Amount (ng)	: 51.7412

Digitally signed by Emily R. Styer on 09/05/2012 at 17:16.
Target 3.5 esignature user ID: ers02237

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT15

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769190

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s39.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	59	
67-64-1	Acetone	12	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	2	J
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	7	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT15

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769190

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s39.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT15

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769190

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s39.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT15

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769190

Data file: /chem/HP07159.i/12sep05b.b/ns05s39.d
Injection date and time: **05-SEP-2012 16:32**
Data file Sample Info. Line: PAT15;6769190;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.255	(-0.018)	438	65	319483	(-16)	250.00	
70) Fluorobenzene	7.717	(-0.006)	1007	96	1406331	(-7)	50.00	
98) Chlorobenzene-d5	11.178	(-0.012)	1576	117	1017100	(-4)	50.00	
130) 1,4-Dichlorobenzene-d4	13.064	(-0.036)	1886	152	566604	(-10)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.792	(0.000)	113	318880	50.726	101%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.254	(0.000)	102	85002	50.555	101%		77 - 113
86) Toluene-d8	(2)	9.736	(0.000)	98	1341243	47.133	94%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.188	(-0.002)	95	483032	46.688	93%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.574	(0.000)	96	337157	58.934	58.93			0.8	5
19) Acetone	(1)	3.689	(-0.009)	58	13618	11.539	11.54		J	6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)	5.296	(-0.004)	63	23330	1.856	1.86		J	1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)	6.336	(-0.024)	43	40965A	7.355	7.36		J	3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

A = User selected an alternate peak.

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PAT15 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 6769190

Data file: /chem/HP07159.i/12sep05b.b/ns05s39.d Injection date and time: **05-SEP-2012 16:32**
Data file Sample Info. Line: PAT15;6769190;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

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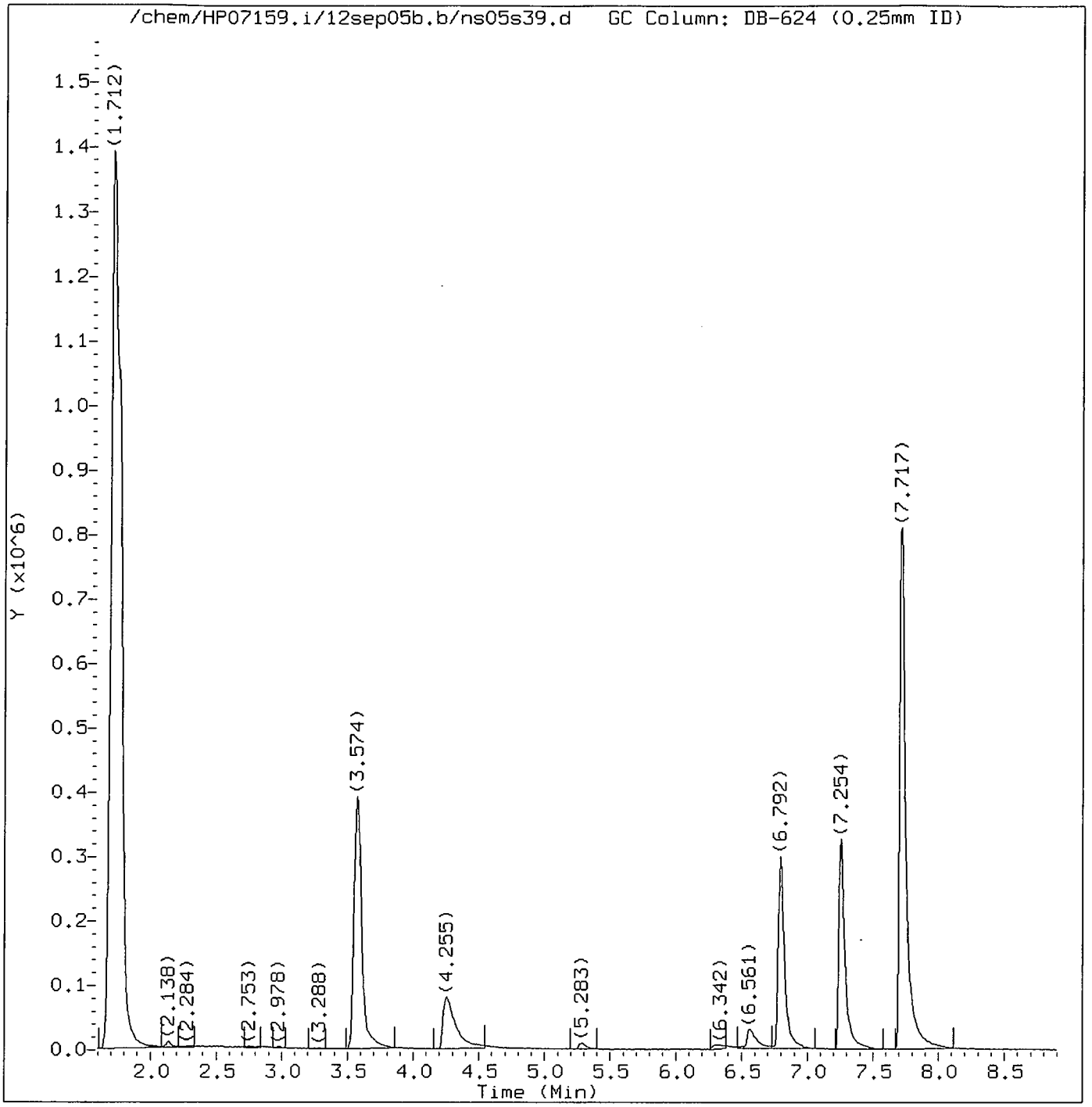
Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

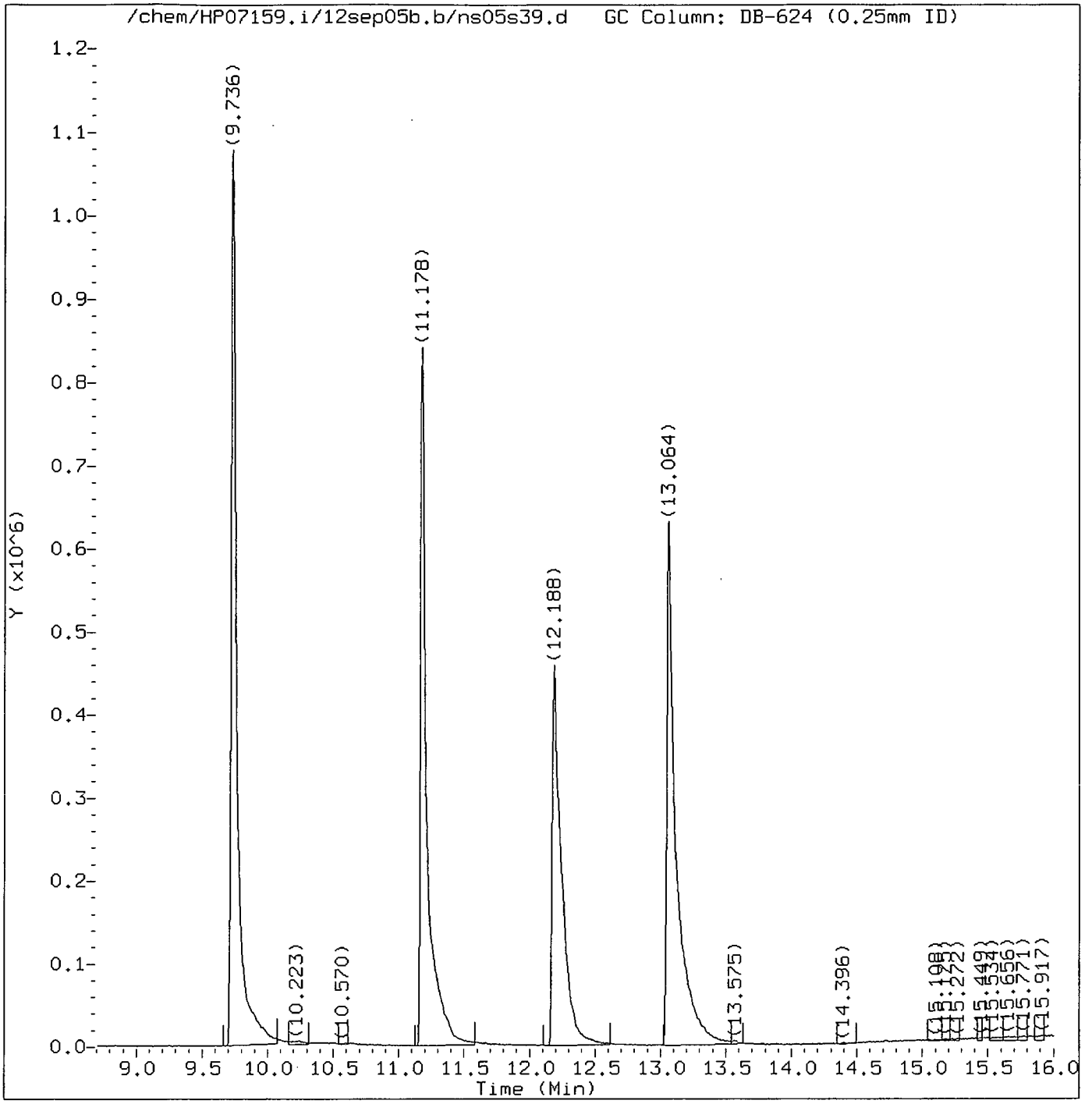
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s39.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:32 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT15 Lab Sample ID: 6769190

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s39.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:32 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT15 Lab Sample ID: 6769190

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s39.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:32 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT15 Lab Sample ID: 6769190

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.574	96	337157	58.934
19) Acetone	(1)	3.689	58	13618	11.539
26)*t-Butyl Alcohol-d10	(4)	4.255	65	319483	250.000
36) 1,1-Dichloroethane	(1)	5.296	63	23330	1.856
42) 2-Butanone	(1)	6.336	43	40965A	7.355
51)$Dibromofluoromethane	(1)	6.792	113	318880	50.726
62)$1,2-Dichloroethane-d4	(1)	7.254	102	85002	50.555
70)*Fluorobenzene	(1)	7.717	96	1406331	50.000
86)$Toluene-d8	(2)	9.736	98	1341243	47.133
98)*Chlorobenzene-d5	(2)	11.178	117	1017100	50.000
114)$4-Bromofluorobenzene	(2)	12.188	95	483032	46.688
130)*1,4-Dichlorobenzene-d4	(3)	13.064	152	566604	50.000

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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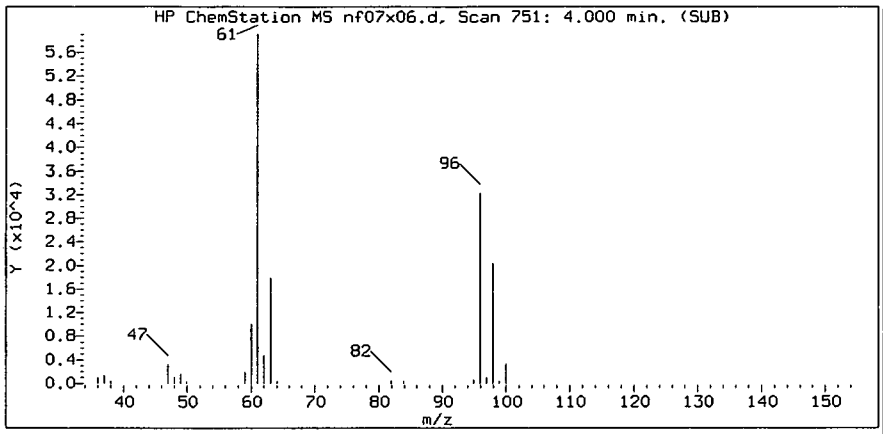
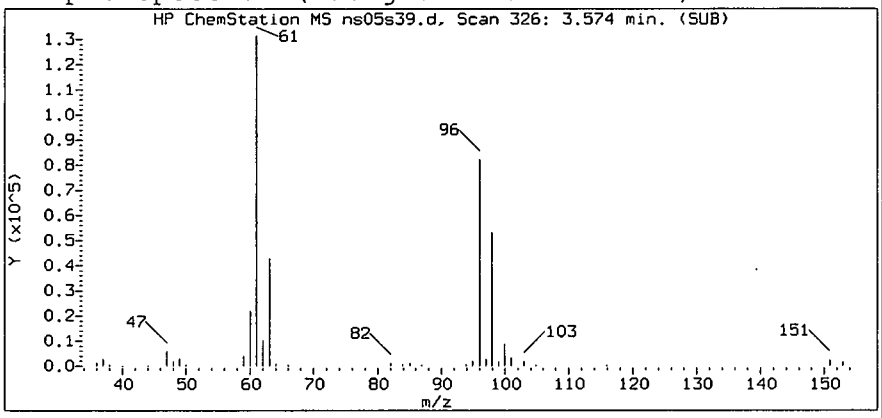
on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174

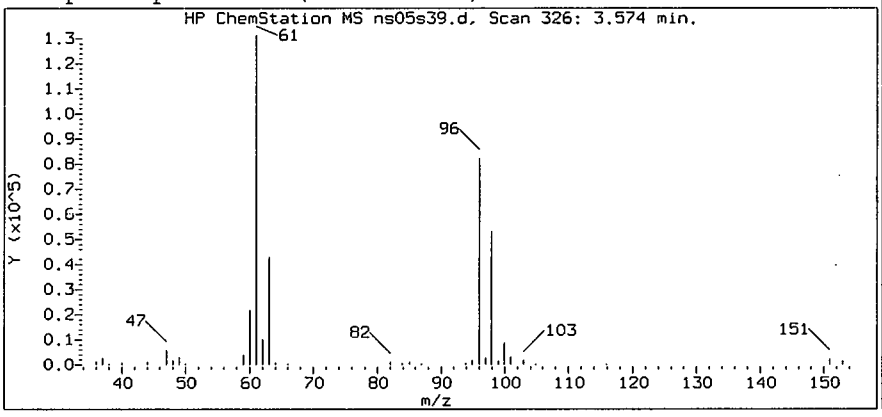
Reference Standard Spectrum for 1,1-Dichloroethene

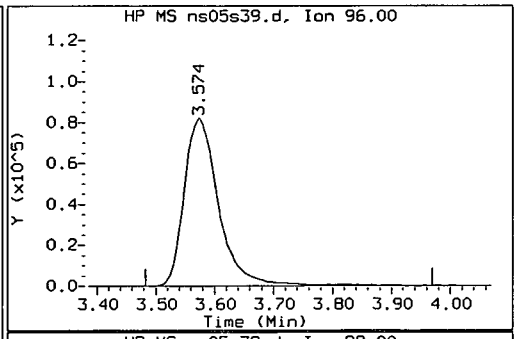


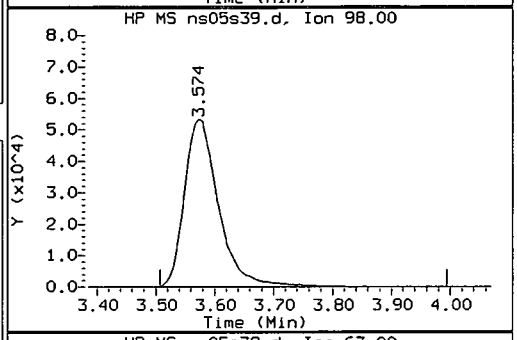
Sample Spectrum (Background Subtracted)

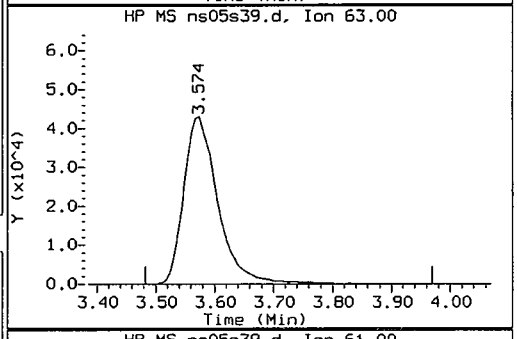


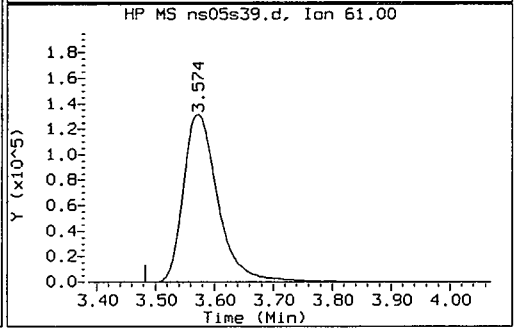
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s39.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:32 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT15 Lab Sample ID: 6769190

Compound Number	: 16
Compound Name	: 1,1-Dichloroethene
Scan Number	: 326
Retention Time (minutes)	: 3.574
Relative Retention Time	: 0.00039
Quant Ion	: 96.00
Area (flag)	: 337157
On-Column Amount (ng)	: 58.9344

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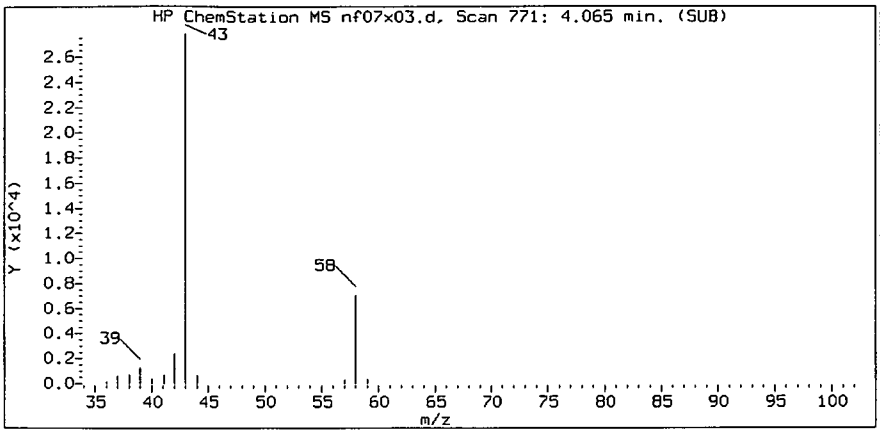
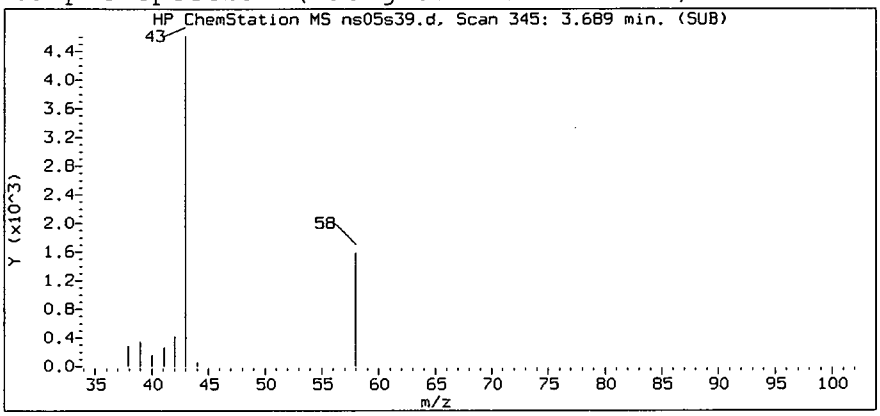
Target 3.5 esignature user ID: sag03174

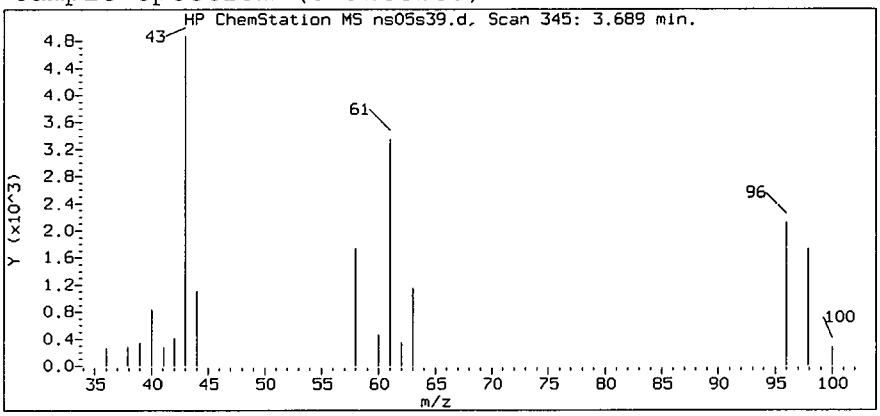
Reference Standard Spectrum for Acetone

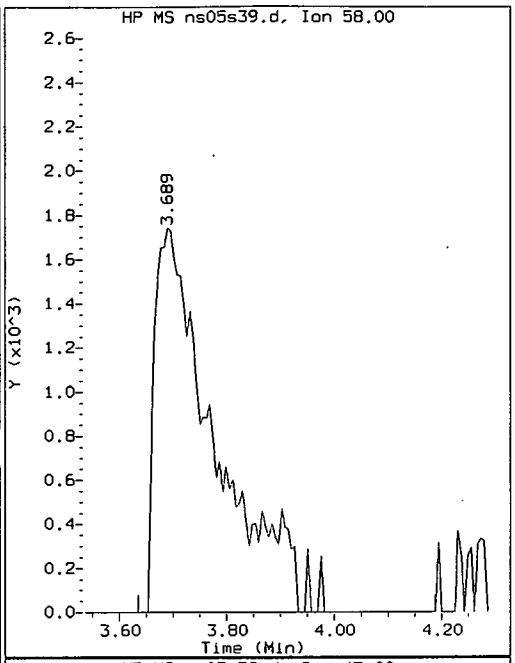


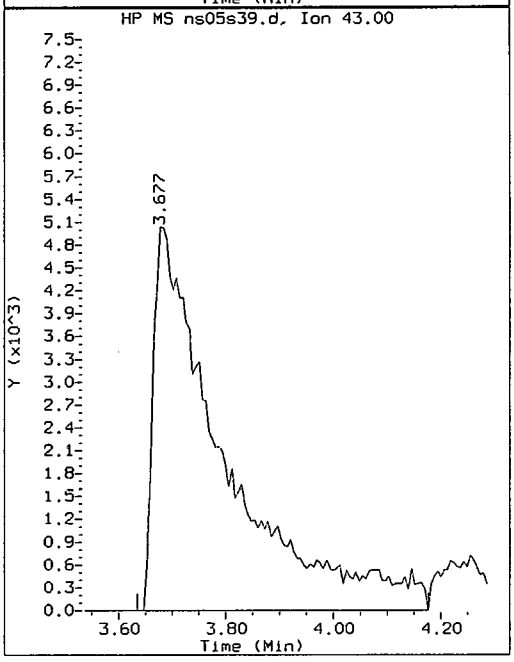
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem/HP07159.i/12sep05b.b/ns05s39.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:32 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT15 Lab Sample ID: 6769190

Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 345
Retention Time (minutes)	: 3.689
Relative Retention Time	:-0.00906
Quant Ion	: 58.00
Area (flag)	: 13618
On-Column Amount (ng)	: 11.5387

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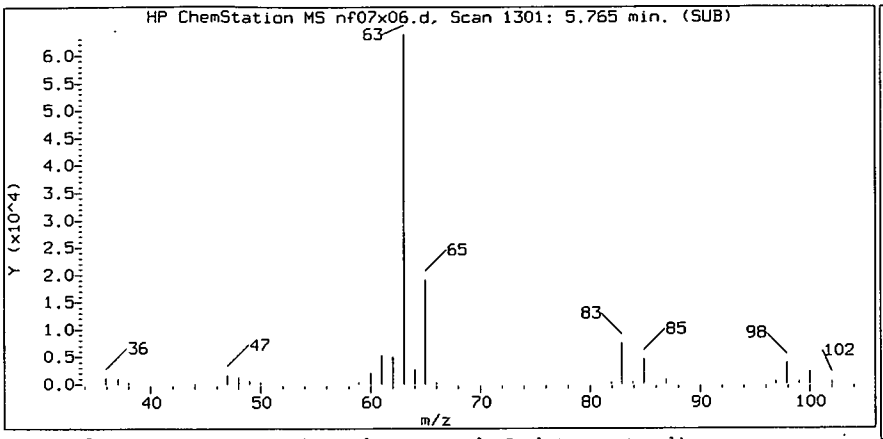
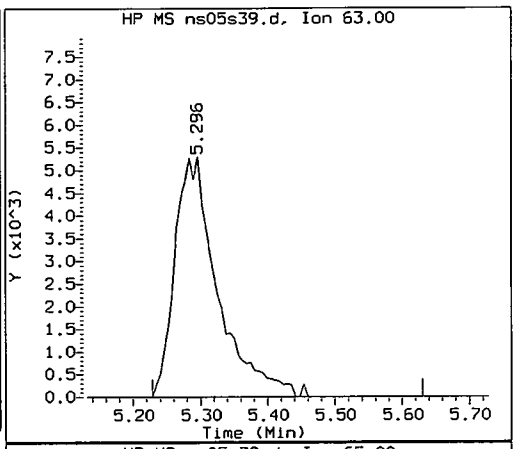
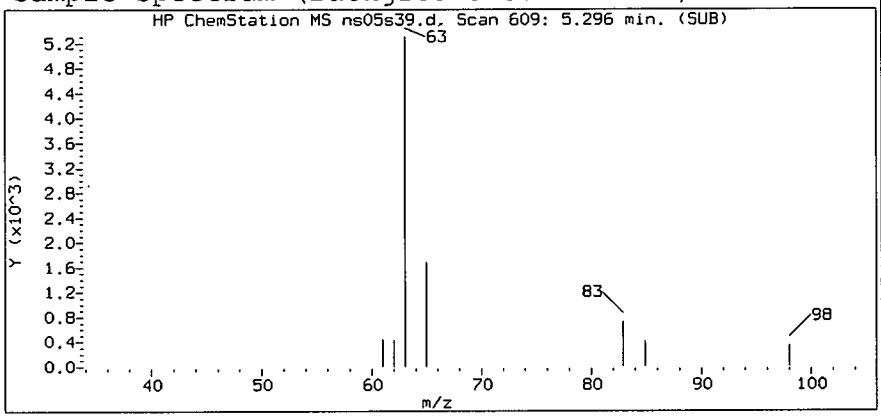
Target 3.5 esignature user ID: sag03174

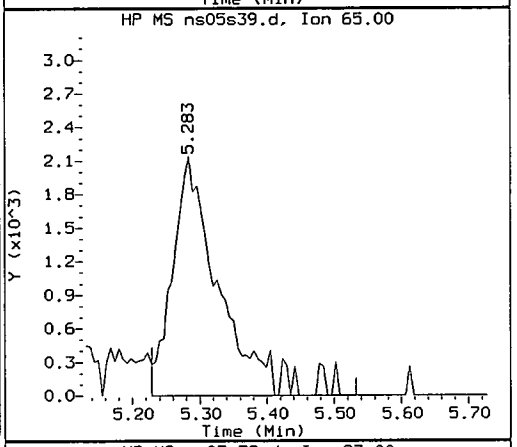
Reference Standard Spectrum for 1,1-Dichloroethane



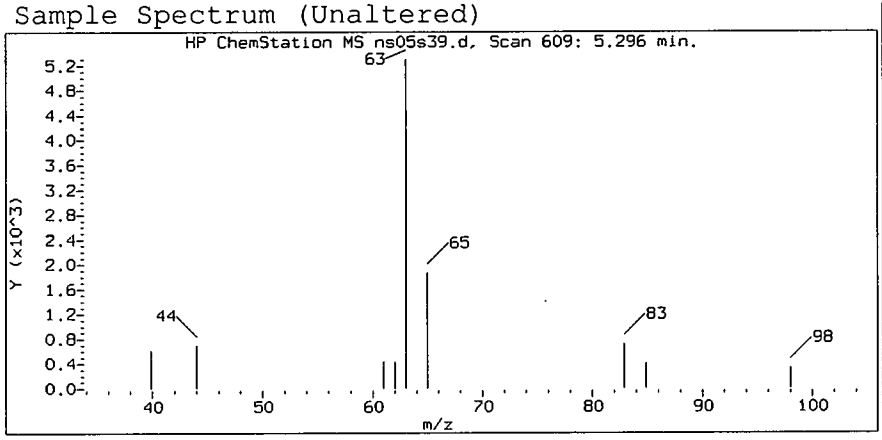


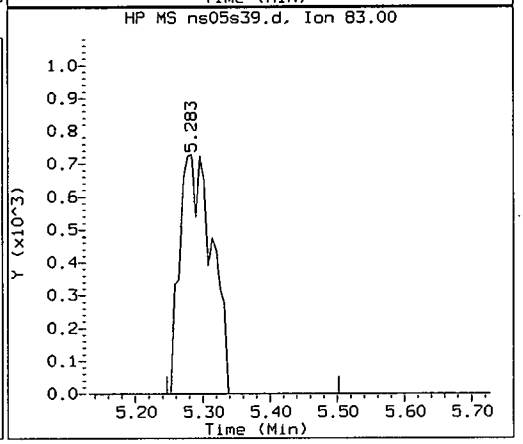
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s39.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:32 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT15 Lab Sample ID: 6769190

Compound Number	: 36
Compound Name	: 1,1-Dichloroethane
Scan Number	: 609
Retention Time (minutes)	: 5.296
Relative Retention Time	:-0.00497
Quant Ion	: 63.00
Area (flag)	: 23330
On-Column Amount (ng)	: 1.8556

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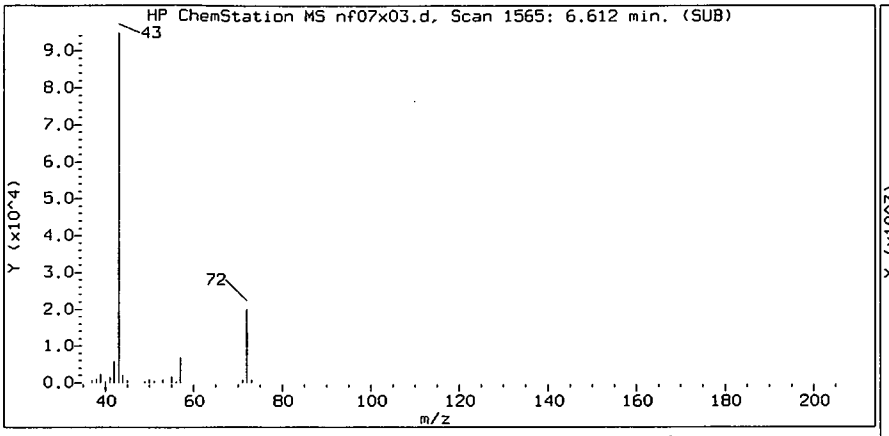
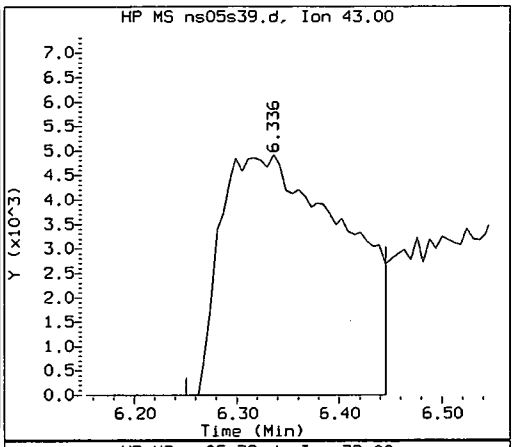
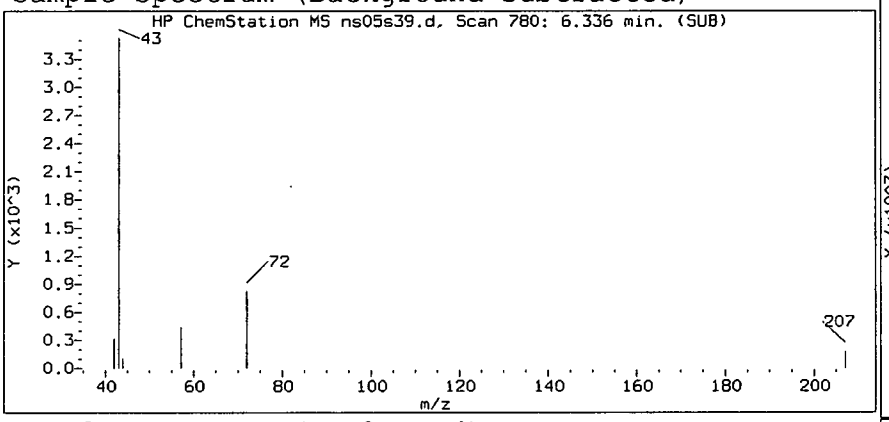
Target 3.5 esignature user ID: sag03174

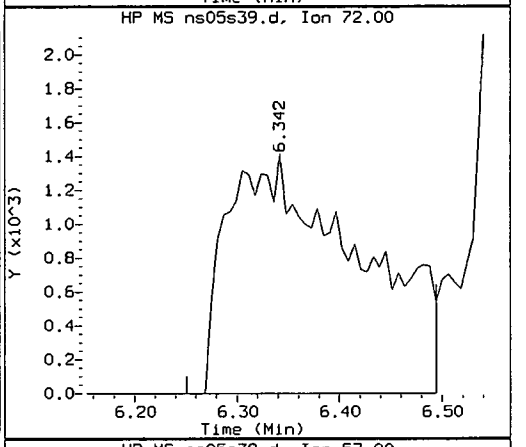
Reference Standard Spectrum for 2-Butanone



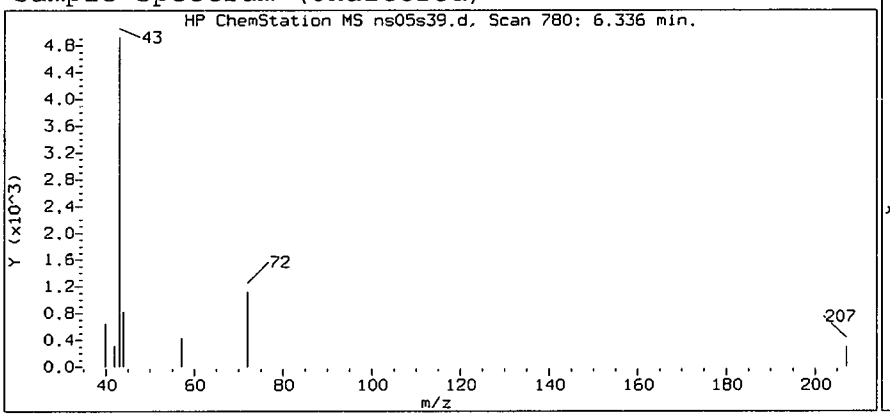


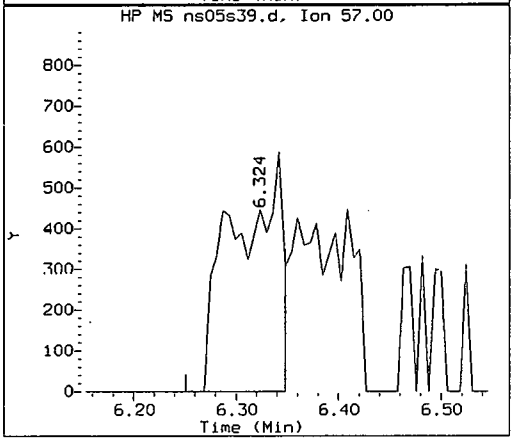
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s39.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:32 Analyst ID: ERS02237

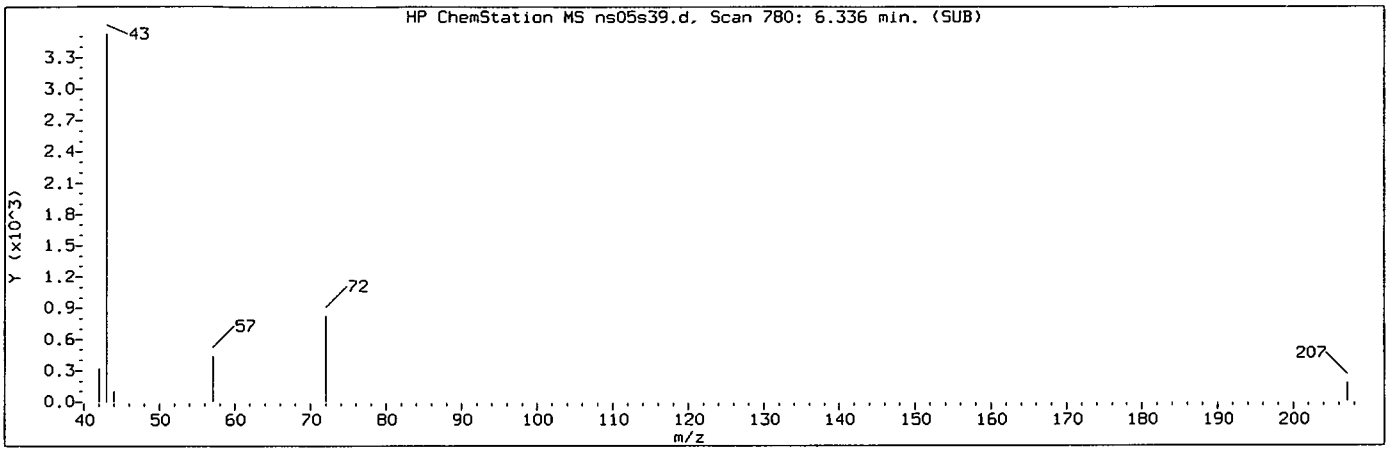
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT15 Lab Sample ID: 6769190

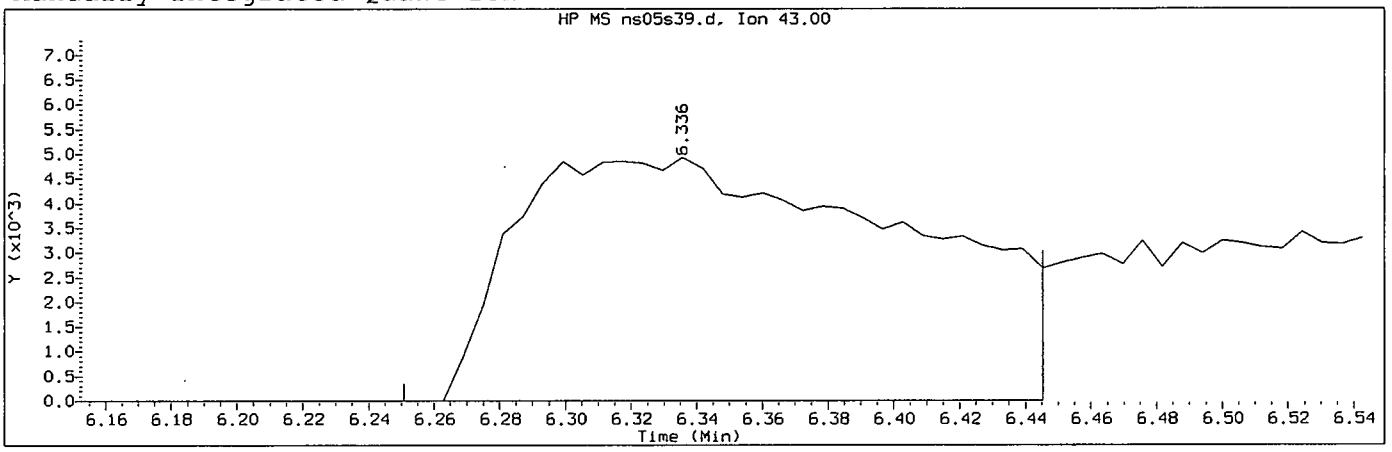
Compound Number	: 42
Compound Name	: 2-Butanone
Scan Number	: 780
Retention Time (minutes)	: 6.336
Relative Retention Time	:-0.02459
Quant Ion	: 43.00
Area (flag)	: 40965A
On-Column Amount (ng)	: 7.3551

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s39.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:32 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:29 sag03174

Sample Name: PAT15 Lab Sample ID: 6769190

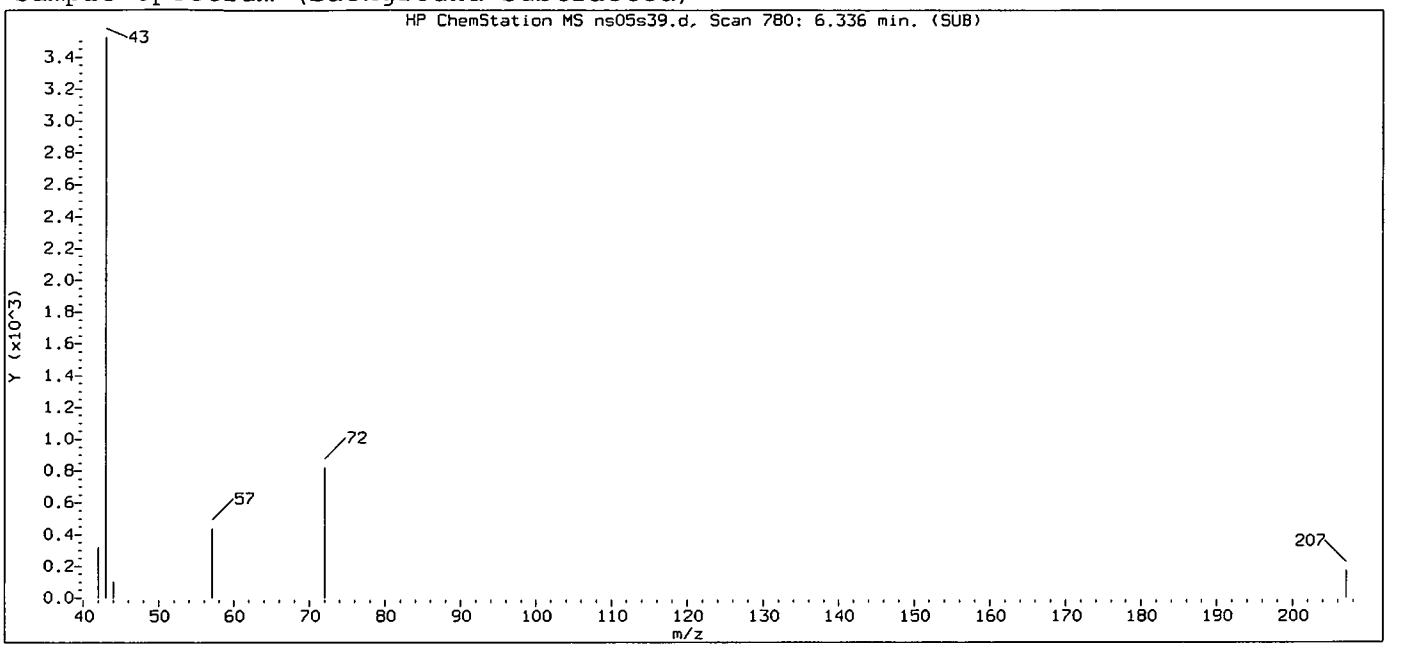
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 780		
Retention Time (minutes)	: 6.336		
Quant Ion	: 43.00		
Area (flag)	: 40965A		
On-Column Amount (ng)	: 7.3551		
Integration start scan	: 765	Integration stop scan:	797
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

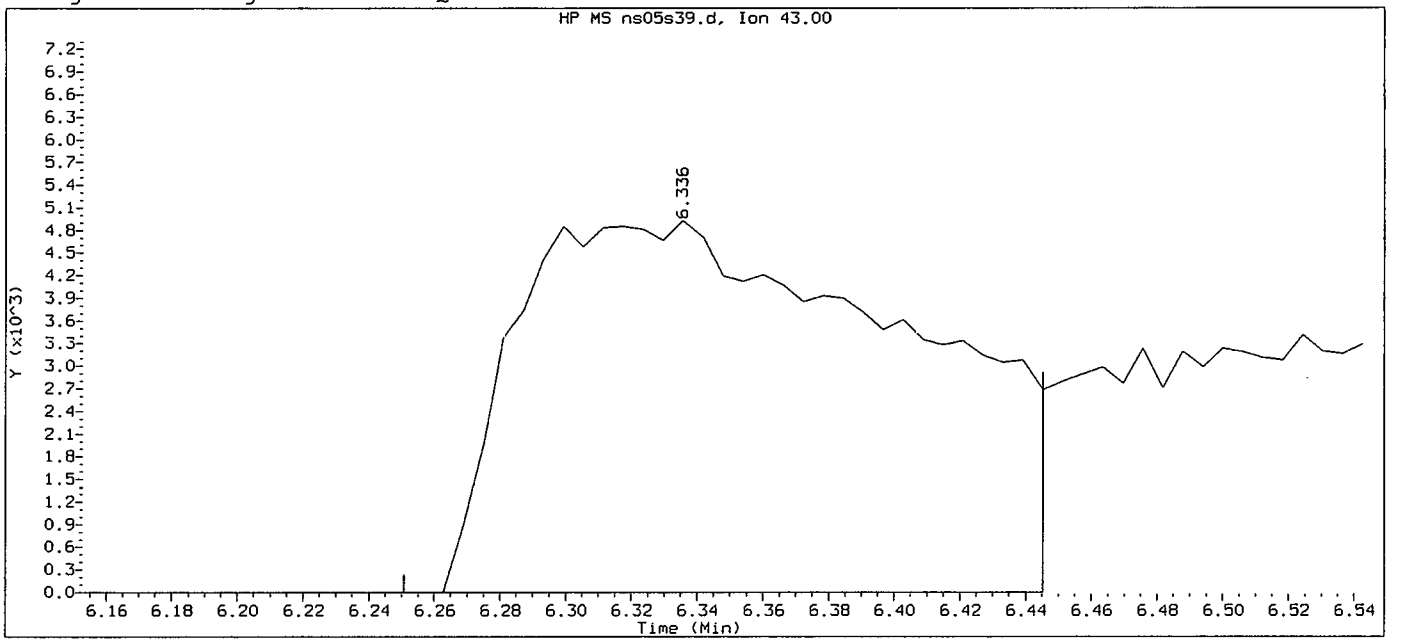
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:30. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s39.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:32 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 16:52 Automation

Sample Name: PAT15 Lab Sample ID: 6769190

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 780		
Retention Time (minutes)	: 6.336		
Quant Ion	: 43.00		
Area	: 40965		
On-column Amount (ng)	: 7.3551		
Integration start scan	: 765	Integration stop scan:	797
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-7

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769191

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s40.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	11	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	6	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-7

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769191

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s40.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-7

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769191

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s40.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT-7

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769191

Data file: /chem/HP07159.i/12sep05b.b/ns05s40.d
Injection date and time: **05-SEP-2012 16:55**
Data file Sample Info. Line: PAT-7;6769191;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:30 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.265(-0.027)	440	65	308424 (-19)	250.00	
70) Fluorobenzene	7.714(-0.003)	1007	96	1348910 (-11)	50.00	
98) Chlorobenzene-d5	11.176(-0.009)	1576	117	959829 (-10)	50.00	
130) 1,4-Dichlorobenzene-d4	13.062(-0.034)	1886	152	553149 (-12)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.796(-0.001)	113	317283	52.620	105%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.252(0.000)	102	83144	51.555	103%		77 - 113
86) Toluene-d8	(2)	9.734(0.000)	98	1294561	48.207	96%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.185(-0.002)	95	474185	48.567	97%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
4) Vinyl Chloride	(1)			Not Detected					1	5
5) Bromomethane	(1)			Not Detected					1	5
7) Chloroethane	(1)			Not Detected					1	5
8) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.8	5
19) Acetone	(1)	3.699(-0.010)	58	12031	10.628	10.63		J	6	20
25) Methylene Chloride	(1)			Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
42) 2-Butanone	(1)	6.345(-0.026)	43	31485MA	5.894	5.89		J	3	10
44) 2,2-Dichloropropane	(1)			Not Detected					1	5
48) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)			Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)			Not Detected					1	5
59) Carbon Tetrachloride	(1)			Not Detected					1	5
65) Benzene	(1)			Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
76) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
81) Bromodichloromethane	(1)			Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
88) Toluene	(2)			Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

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PAT-7

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769191

Data file: /chem/HP07159.i/12sep05b.b/ns05s40.d Injection date and time: **05-SEP-2012 16:55**
Data file Sample Info. Line: PAT-7;6769191;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:30 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

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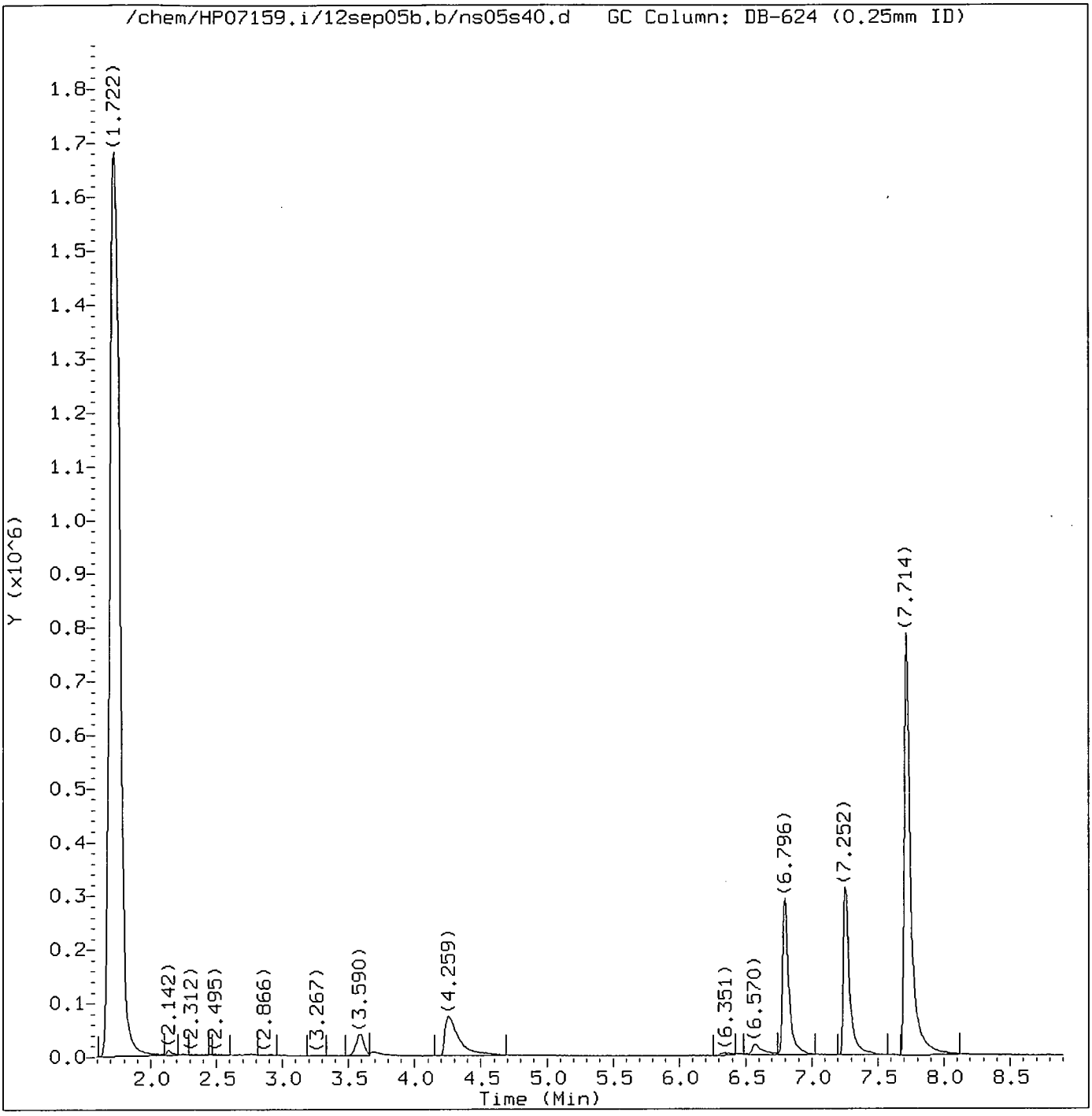
Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

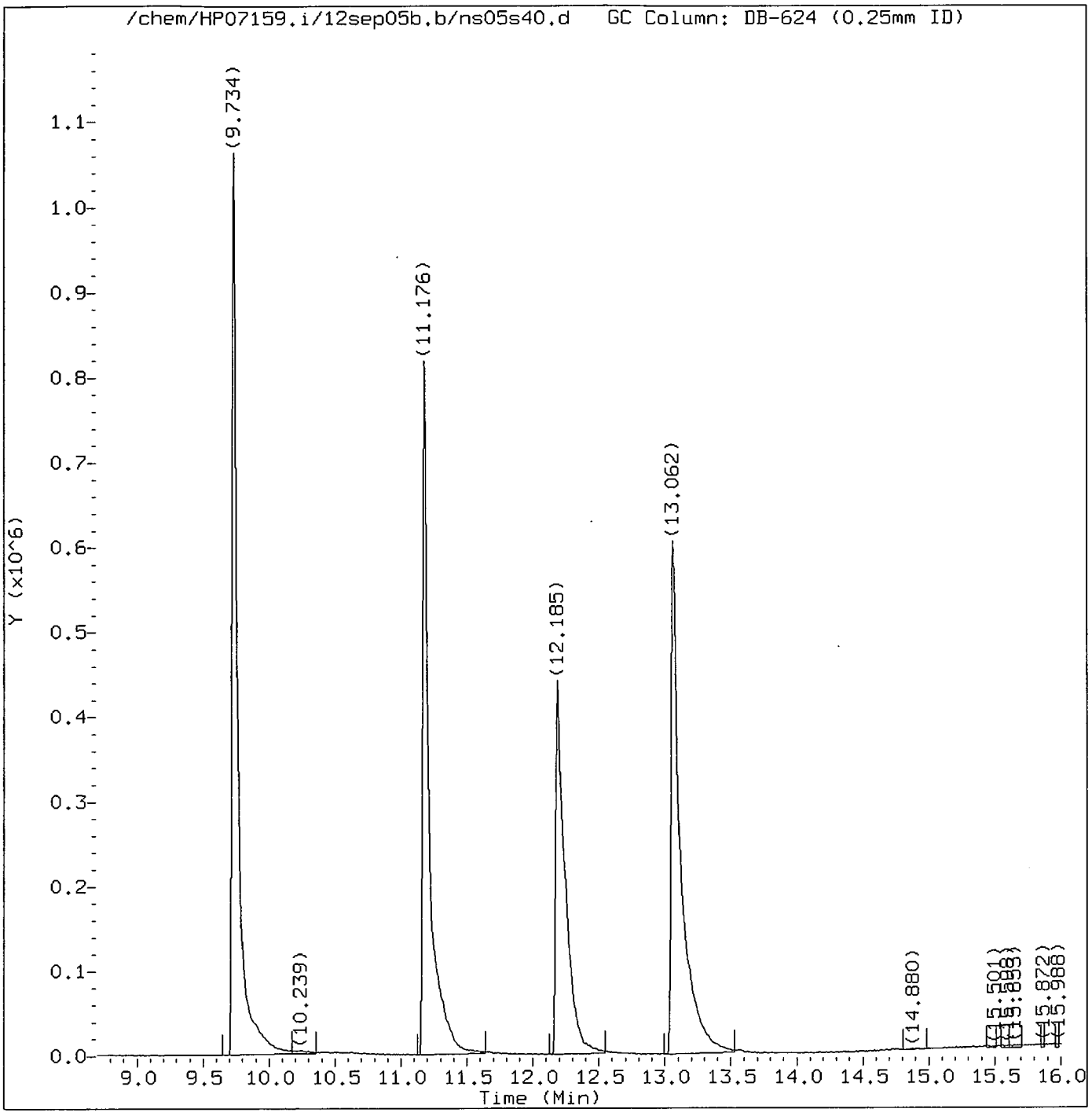
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s40.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:55 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:30 sag03174

Sample Name: PAT-7 Lab Sample ID: 6769191

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s40.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:55 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:30 sag03174

Sample Name: PAT-7 Lab Sample ID: 6769191

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s40.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:55 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:30 sag03174

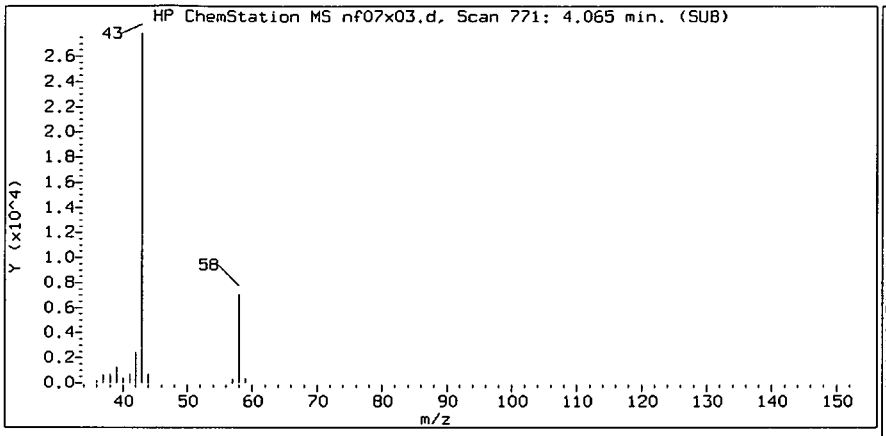
Sample Name: PAT-7 Lab Sample ID: 6769191

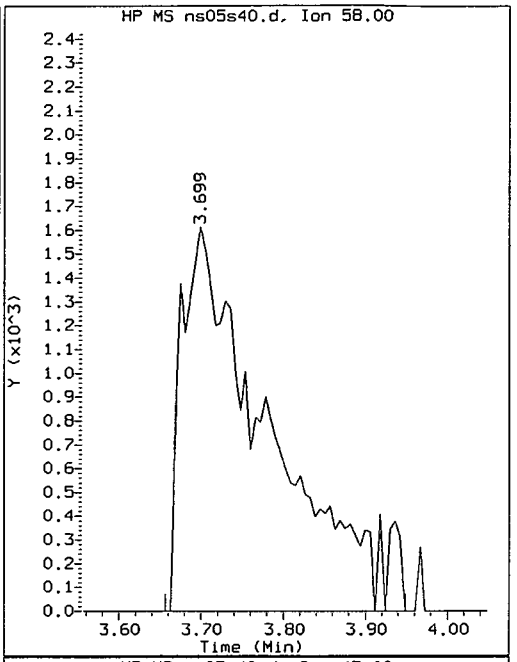
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
19) Acetone	(1)	3.699	58	12031	10.628
26)*t-Butyl Alcohol-d10	(4)	4.265	65	308424	250.000
42) 2-Butanone	(1)	6.345	43	31485MA	5.894
51)$Dibromofluoromethane	(1)	6.796	113	317283	52.620
62)$1,2-Dichloroethane-d4	(1)	7.252	102	83144	51.555
70)*Fluorobenzene	(1)	7.714	96	1348910	50.000
86)$Toluene-d8	(2)	9.734	98	1294561	48.207
98)*Chlorobenzene-d5	(2)	11.176	117	959829	50.000
114)$4-Bromofluorobenzene	(2)	12.185	95	474185	48.567
130)*1,4-Dichlorobenzene-d4	(3)	13.062	152	553149	50.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

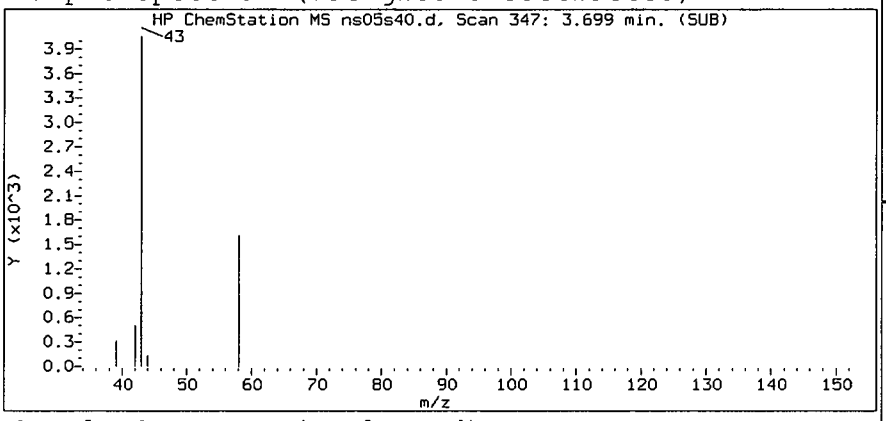
Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174

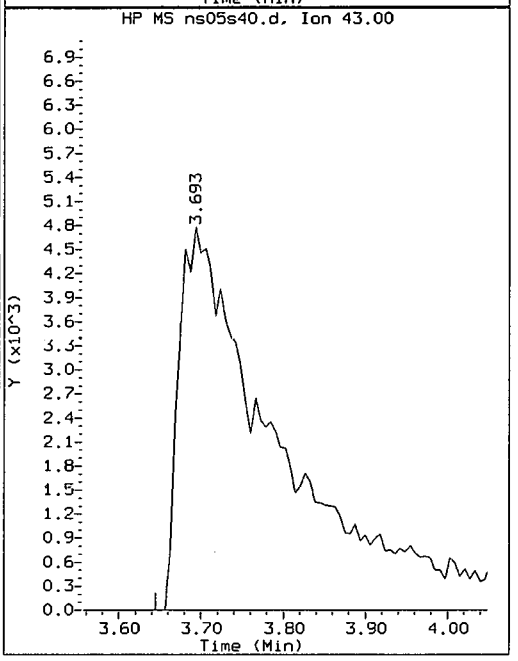
Reference Standard Spectrum for Acetone



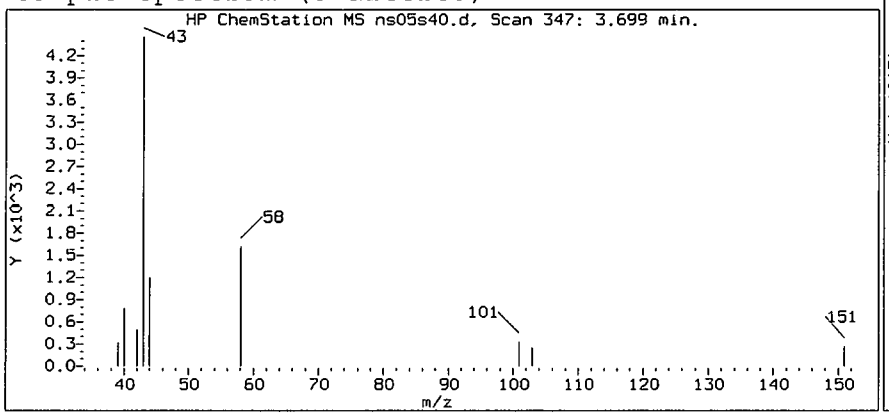


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s40.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:55 Analyst ID: ERS02237

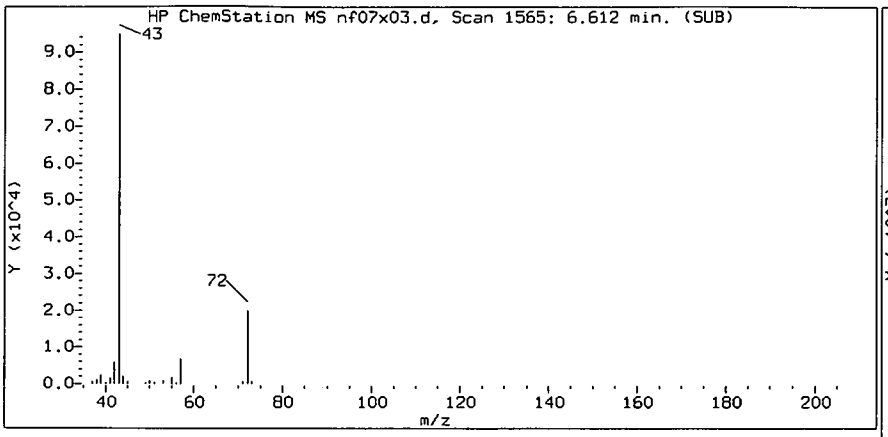
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:30 sag03174

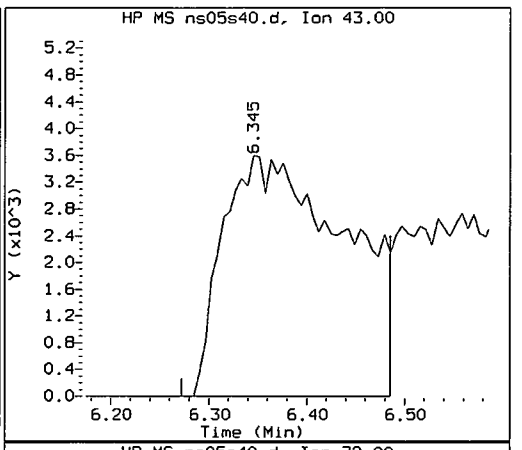
Sample Name: PAT-7 Lab Sample ID: 6769191

Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 347
Retention Time (minutes)	: 3.699
Relative Retention Time	:-0.01047
Quant Ion	: 58.00
Area (flag)	: 12031
On-Column Amount (ng)	: 10.6280

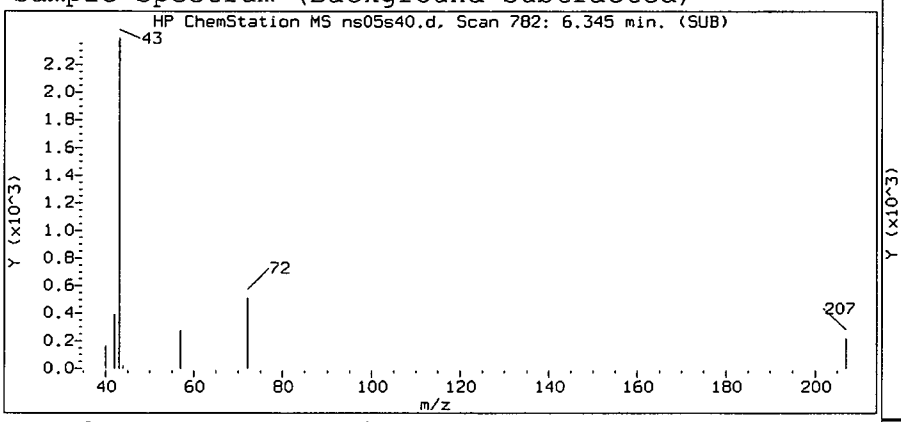
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174

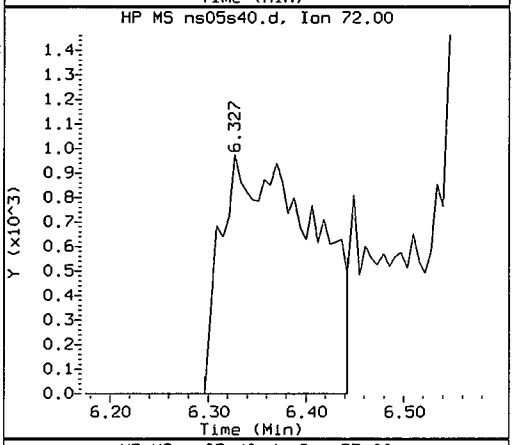
Reference Standard Spectrum for 2-Butanone



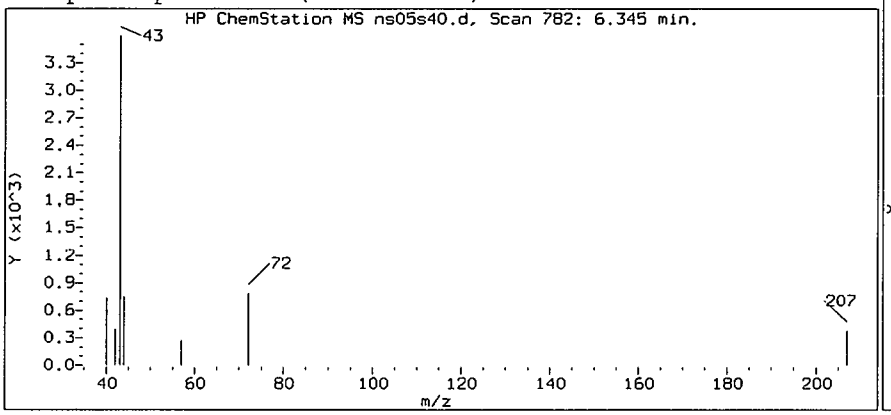


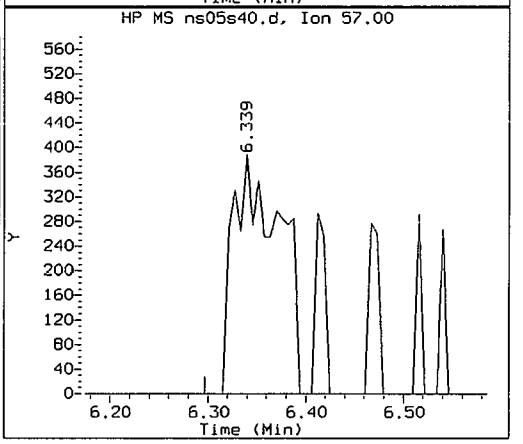
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s40.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:55 Analyst ID: ERS02237

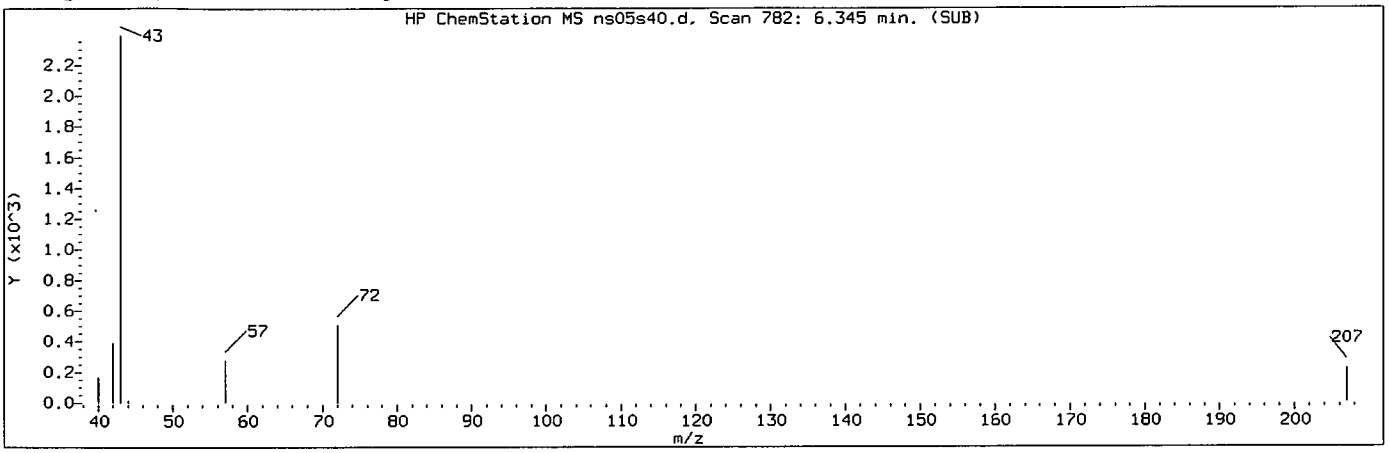
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:30 sag03174

Sample Name: PAT-7 Lab Sample ID: 6769191

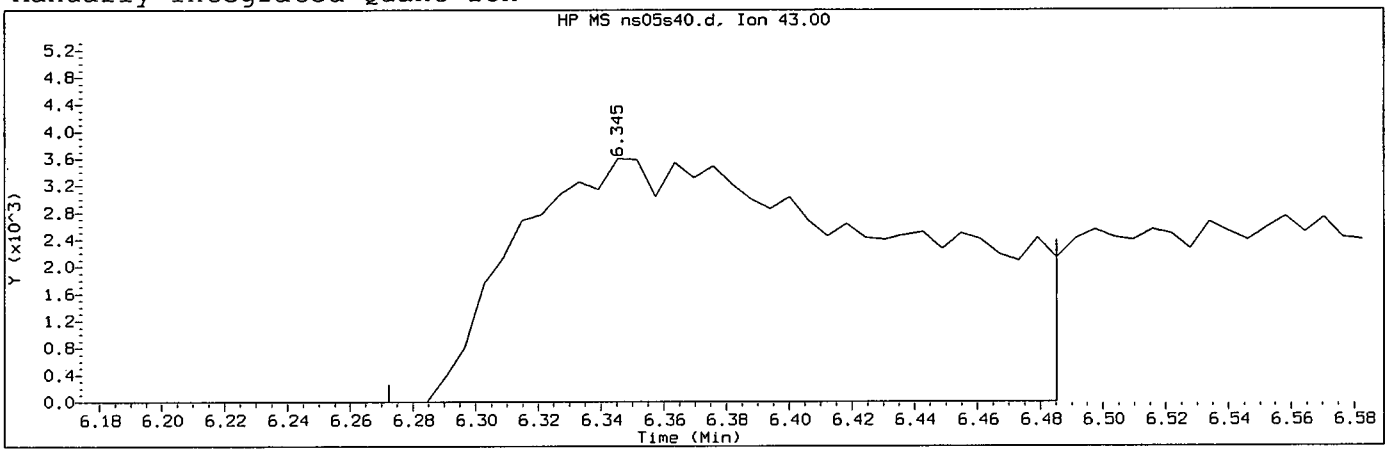
Compound Number	: 42
Compound Name	: 2-Butanone
Scan Number	: 782
Retention Time (minutes)	: 6.345
Relative Retention Time	:-0.02611
Quant Ion	: 43.00
Area (flag)	: 31485AM
On-Column Amount (ng)	: 5.8938

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s40.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:55 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:30 sag03174

Sample Name: PAT-7 Lab Sample ID: 6769191

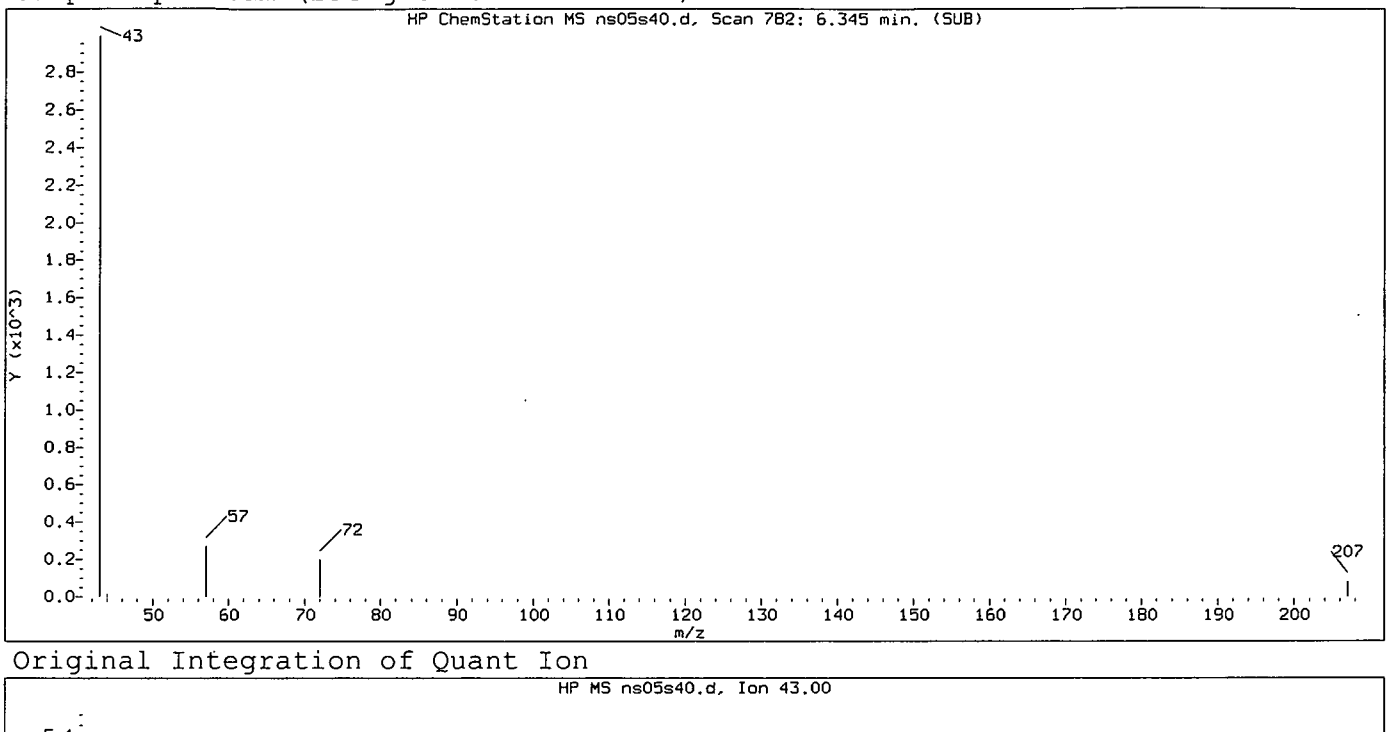
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 782		
Retention Time (minutes)	: 6.345		
Quant Ion	: 43.00		
Area (flag)	: 31485AM		
On-Column Amount (ng)	: 5.8938		
Integration start scan	: 769	Integration stop scan:	804
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

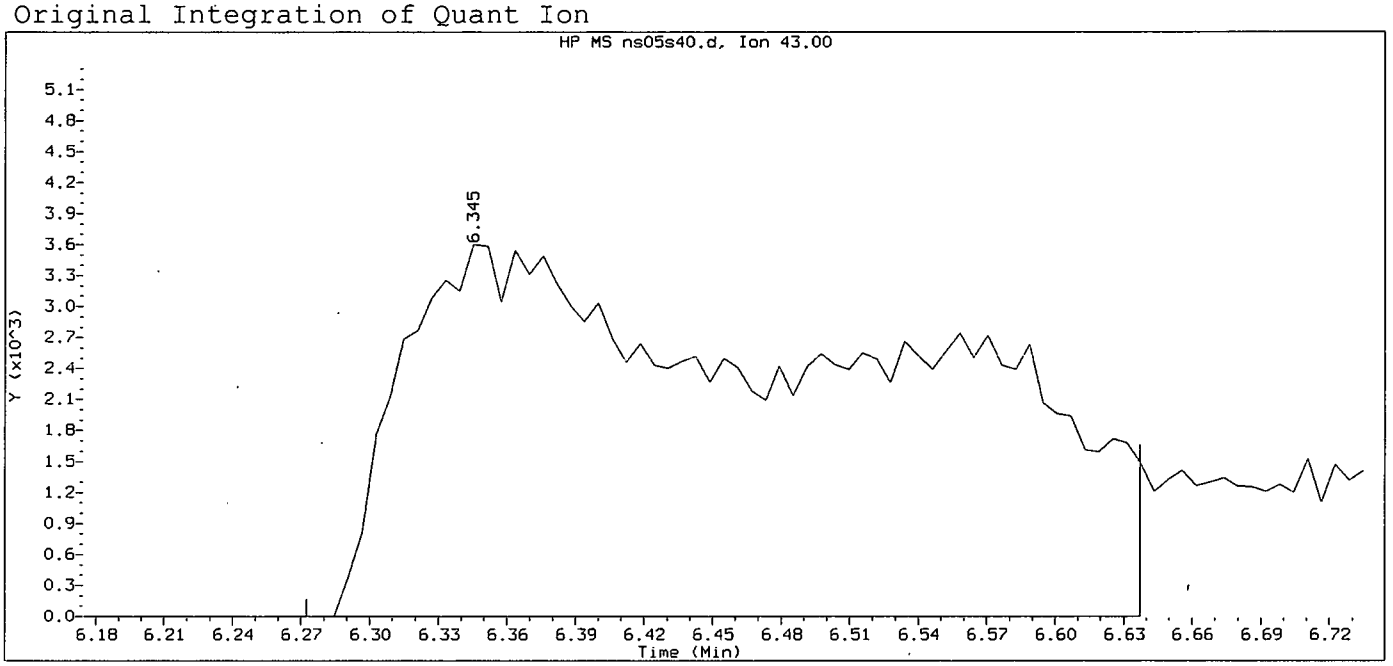
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s40.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 16:55 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:15 Automation

Sample Name: PAT-7 Lab Sample ID: 6769191

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 782		
Retention Time (minutes)	: 6.345		
Quant Ion	: 43.00		
Area	: 51906		
On-column Amount (ng)	: 9.7162		
Integration start scan	: 769	Integration stop scan:	829
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:30.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT7A

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769192

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s41.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	2	J
67-64-1	Acetone	7	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	7	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT7A

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769192

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s41.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-86-1	Bromobenzene		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT7A

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769192

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s41.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT7A

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6769192

Data file: /chem/HP07159.i/12sep05b.b/ns05s41.d Injection date and time: **05-SEP-2012 17:19**
Data file Sample Info. Line: PAT7A;6769192;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:31 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.258	(-0.021)	439	65	301894	(-20)	250.00	
70) Fluorobenzene	7.713	(-0.002)	1007	96	1362114	(-10)	50.00	
98) Chlorobenzene-d5	11.181	(-0.015)	1577	117	979637	(-8)	50.00	
130) 1,4-Dichlorobenzene-d4	13.061	(-0.033)	1886	152	555730	(-12)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.795	(-0.001)	113	314108	51.589	103%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.257	(-0.001)	102	82123	50.428	101%		77 - 113
86) Toluene-d8	(2)	9.733	(0.000)	98	1298948	47.392	95%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.185	(-0.001)	95	476437	47.811	96%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.577	(-0.000)	96	8786	1.586	1.59		J	0.8	5
19) Acetone	(1)	3.710	(-0.011)	58	8057M	7.048	7.05		J	6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)				Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)	6.332	(-0.024)	43	36105MA	6.693	6.69		J	3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:31. Target 3.5 esignature user ID: sag03174

PAT7A

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769192

Data file: /chem/HP07159.i/12sep05b.b/ns05s41.d
Injection date and time: **05-SEP-2012 17:19**
Data file Sample Info. Line: PAT7A;6769192;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:31 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

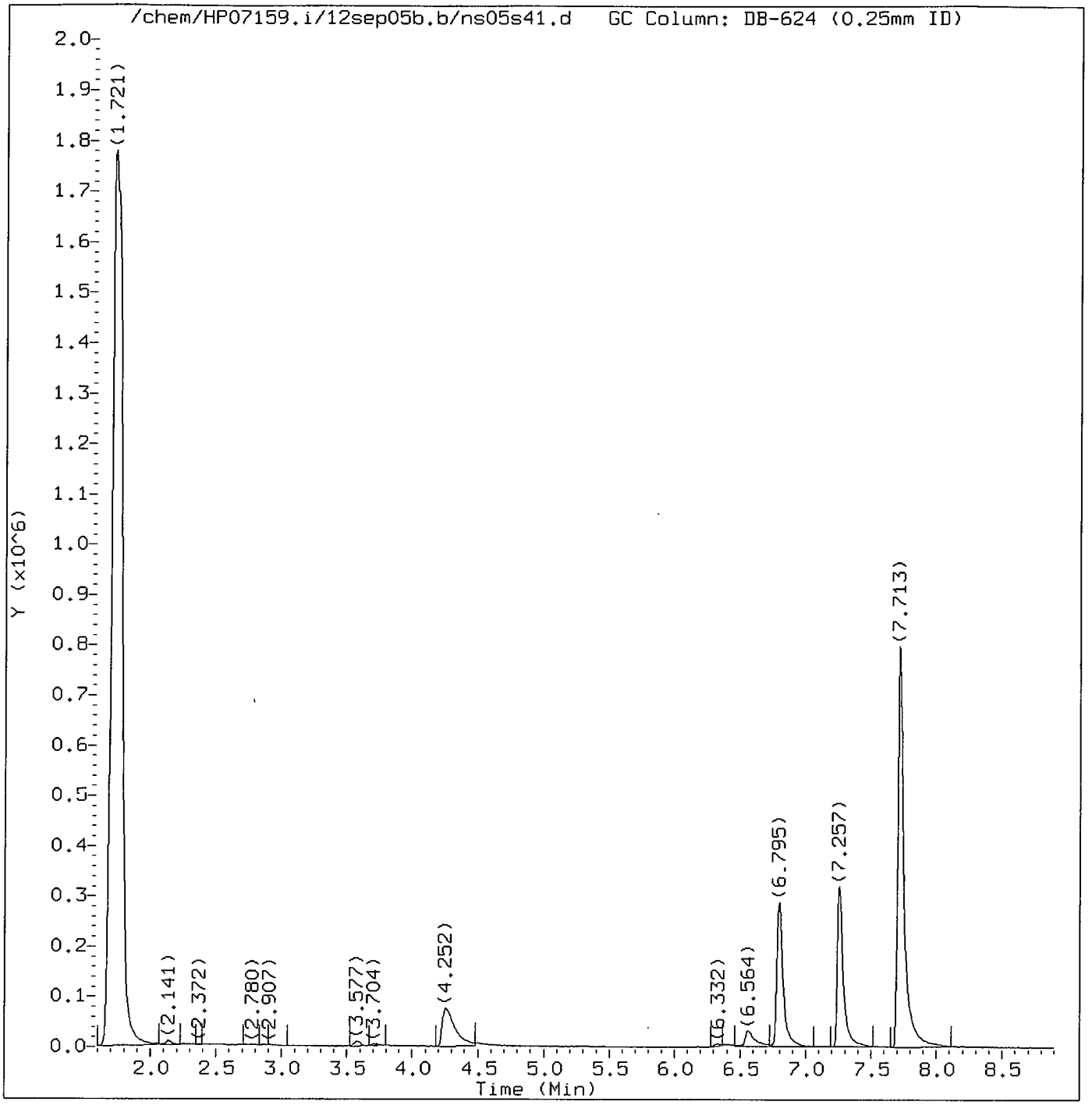
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:31. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s41.d
Injection date and time: 05-SEP-2012 17:19

Instrument ID: HP07159.i
Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m
Calibration date and time: 05-SEP-2012 13:23

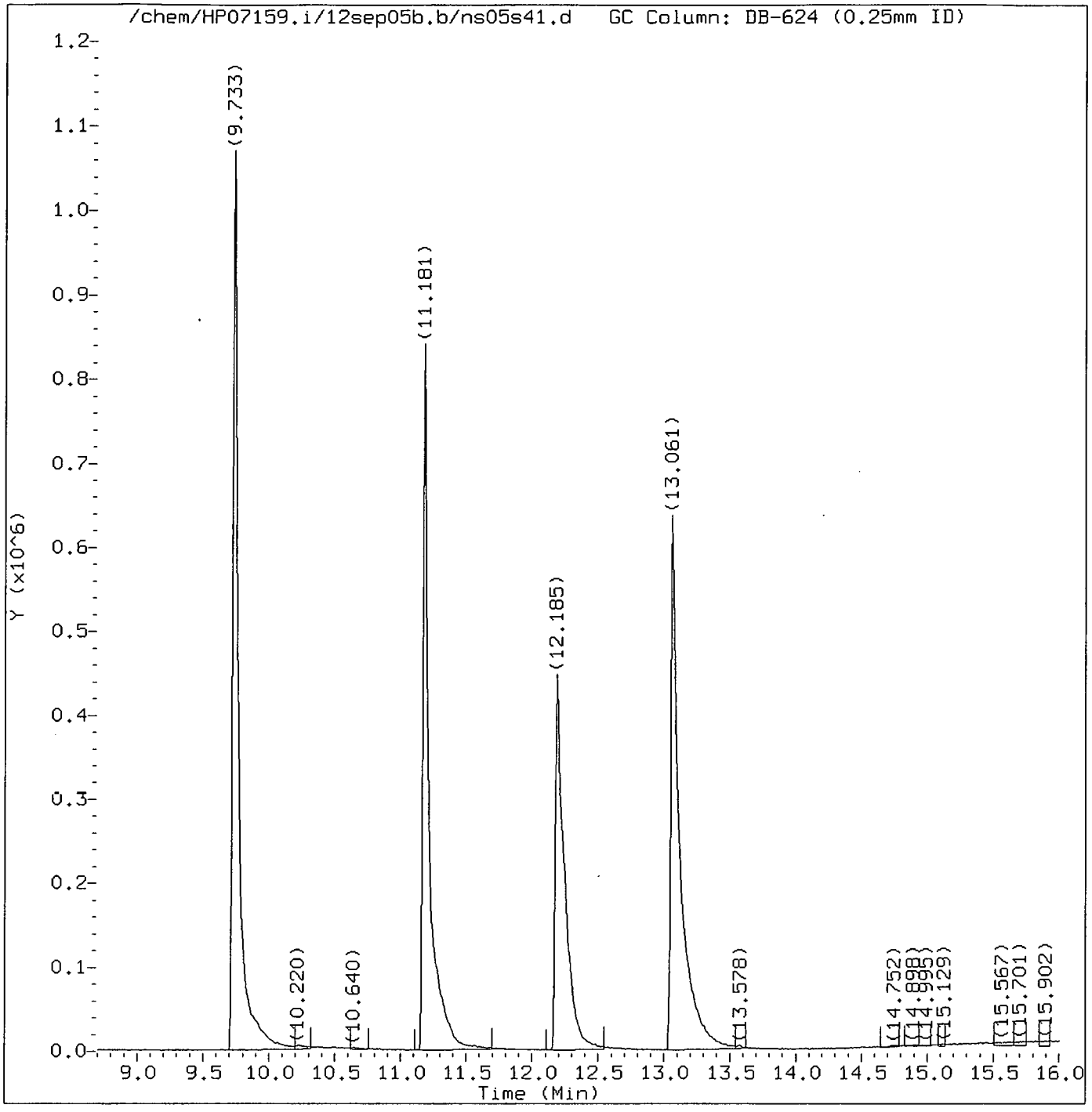
Sublist used: 8732

Date, time and analyst ID of latest file update: 06-Sep-2012 16:31 sag03174

Sample Name: PAT7A

Lab Sample ID: 6769192

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:31.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s41.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:19 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:31 sag03174

Sample Name: PAT7A Lab Sample ID: 6769192

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:31.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s41.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:19 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:31 sag03174

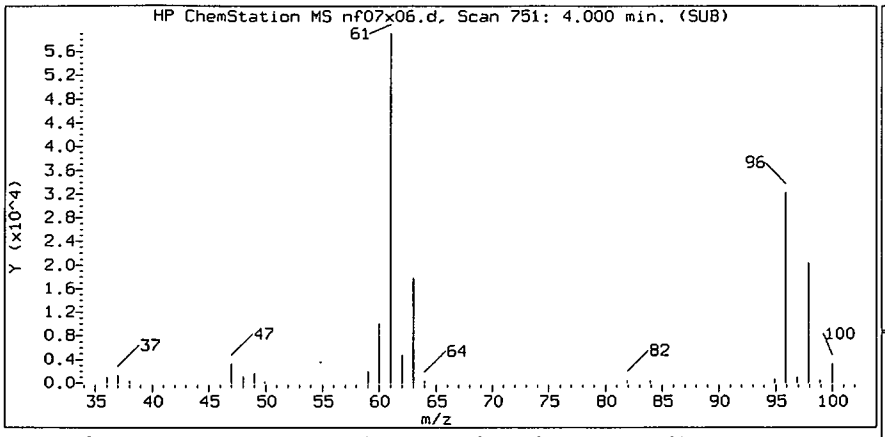
Sample Name: PAT7A Lab Sample ID: 6769192

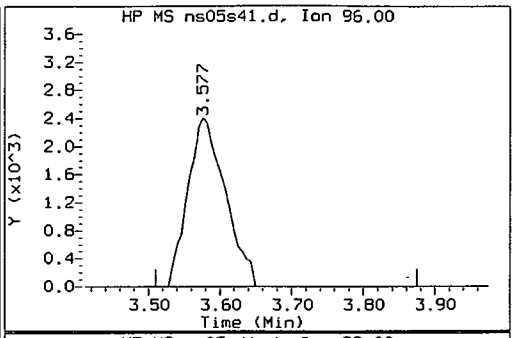
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.577	96	8786	1.586
19) Acetone	(1)	3.710	58	8057M	7.048
26)*t-Butyl Alcohol-d10	(4)	4.258	65	301894	250.000
42) 2-Butanone	(1)	6.332	43	36105MA	6.693
51)$Dibromofluoromethane	(1)	6.795	113	314108	51.589
62)$1,2-Dichloroethane-d4	(1)	7.257	102	82123	50.428
70)*Fluorobenzene	(1)	7.713	96	1362114	50.000
86)$Toluene-d8	(2)	9.733	98	1298948	47.392
98)*Chlorobenzene-d5	(2)	11.181	117	979637	50.000
114)$4-Bromofluorobenzene	(2)	12.185	95	476437	47.811
130)*1,4-Dichlorobenzene-d4	(3)	13.061	152	555730	50.000

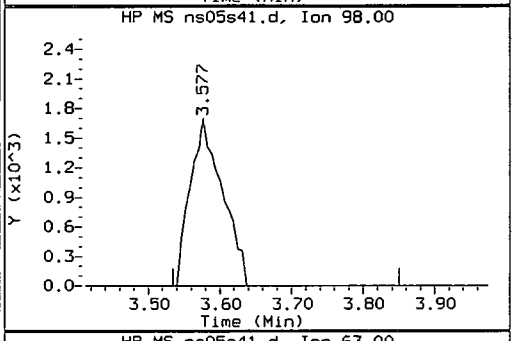
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:31.
Target 3.5 esignature user ID: sag03174

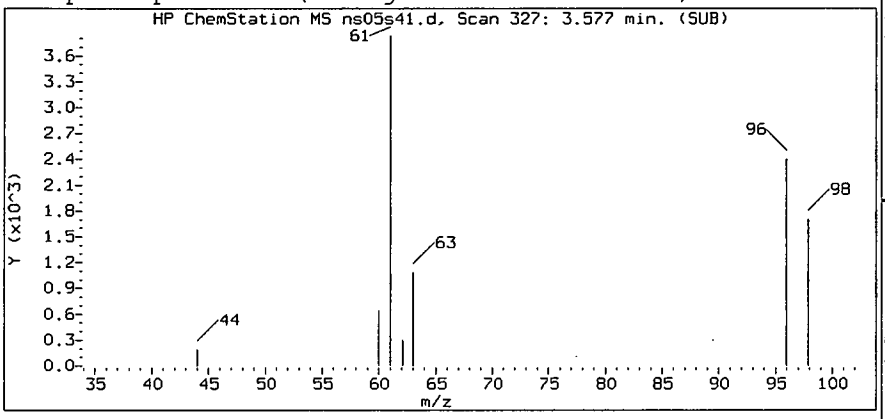
Reference Standard Spectrum for 1,1-Dichloroethene

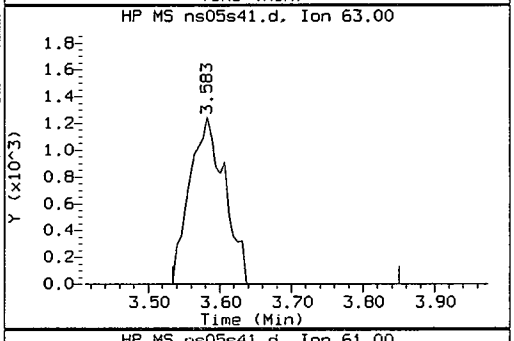




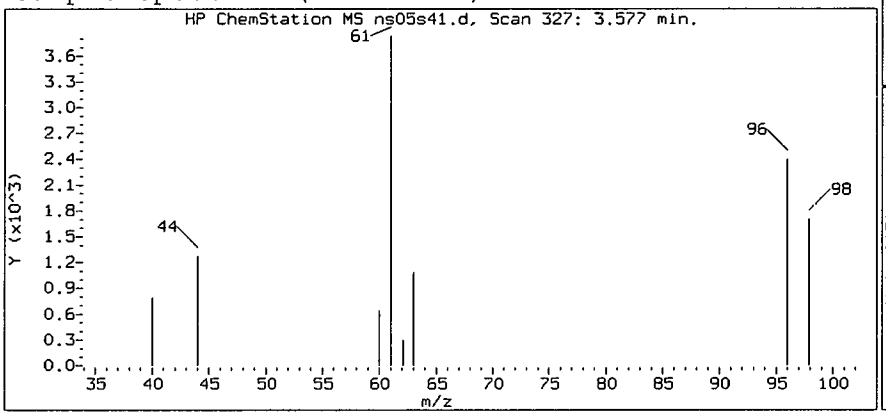


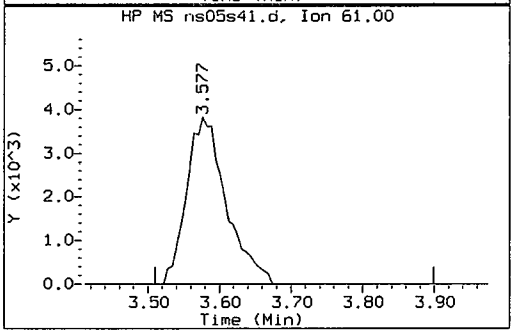
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s41.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:19 Analyst ID: ERS02237

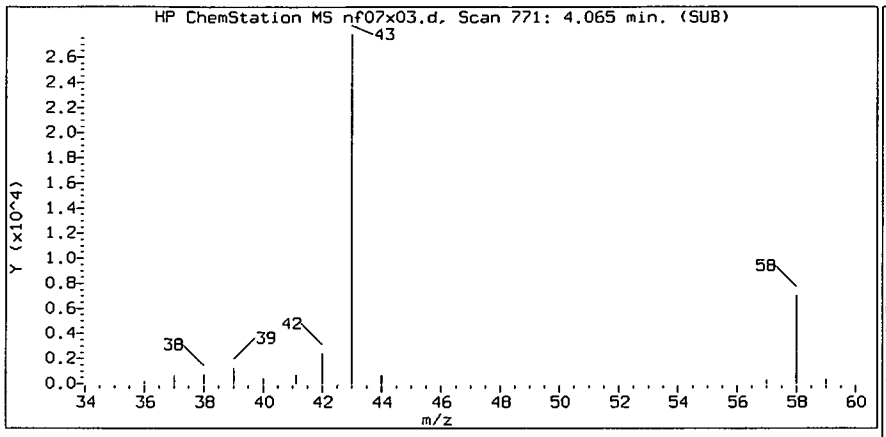
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:31 sag03174

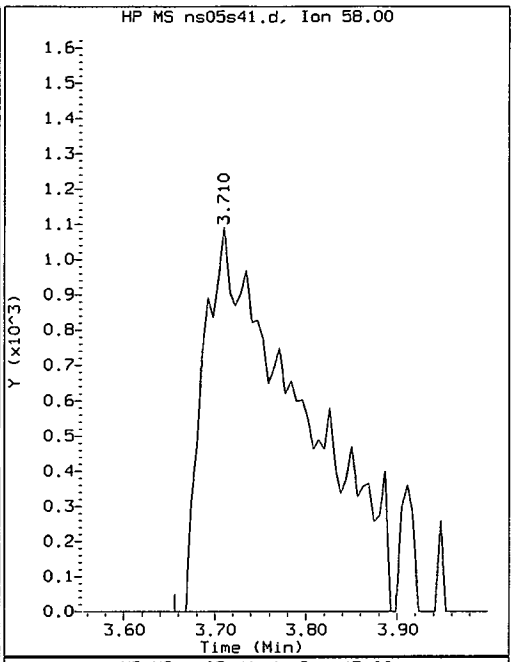
Sample Name: PAT7A Lab Sample ID: 6769192

Compound Number	: 16
Compound Name	: 1,1-Dichloroethene
Scan Number	: 327
Retention Time (minutes)	: 3.577
Relative Retention Time	:-0.00016
Quant Ion	: 96.00
Area (flag)	: 8786
On-Column Amount (ng)	: 1.5856

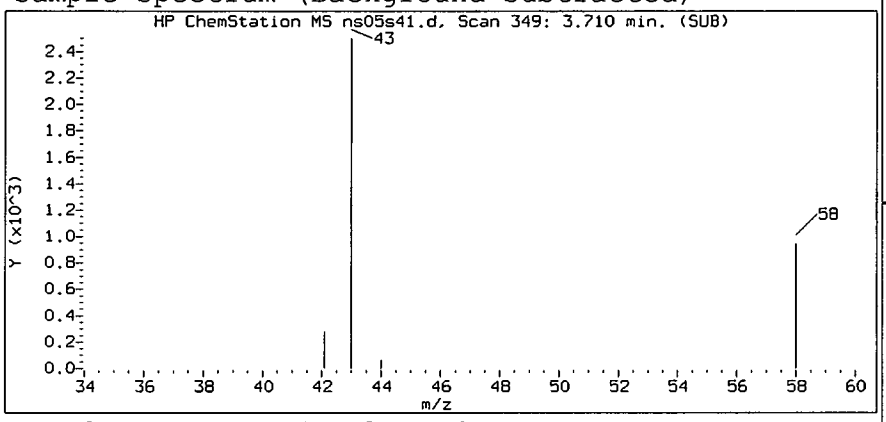
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:31.
Target 3.5 esignature user ID: sag03174

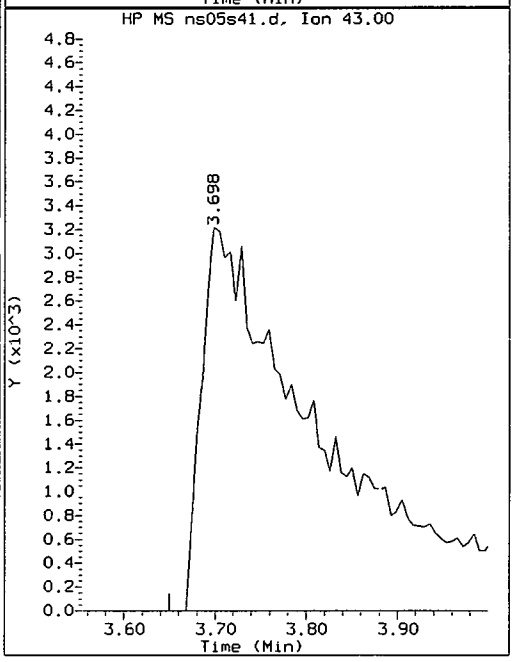
Reference Standard Spectrum for Acetone



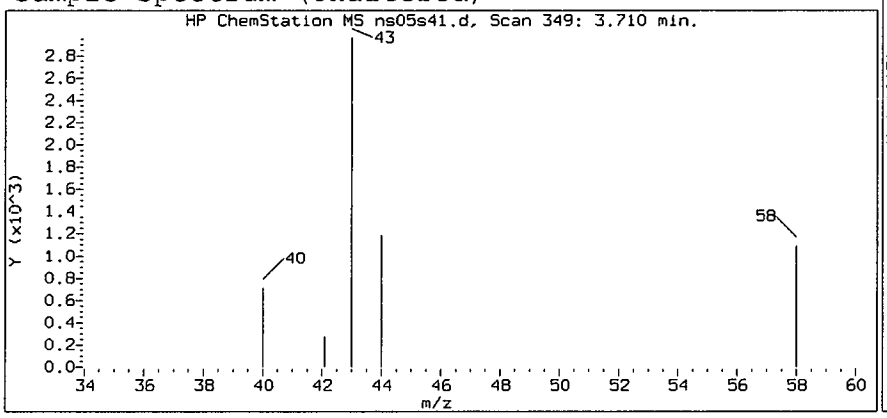


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s41.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:19 Analyst ID: ERS02237

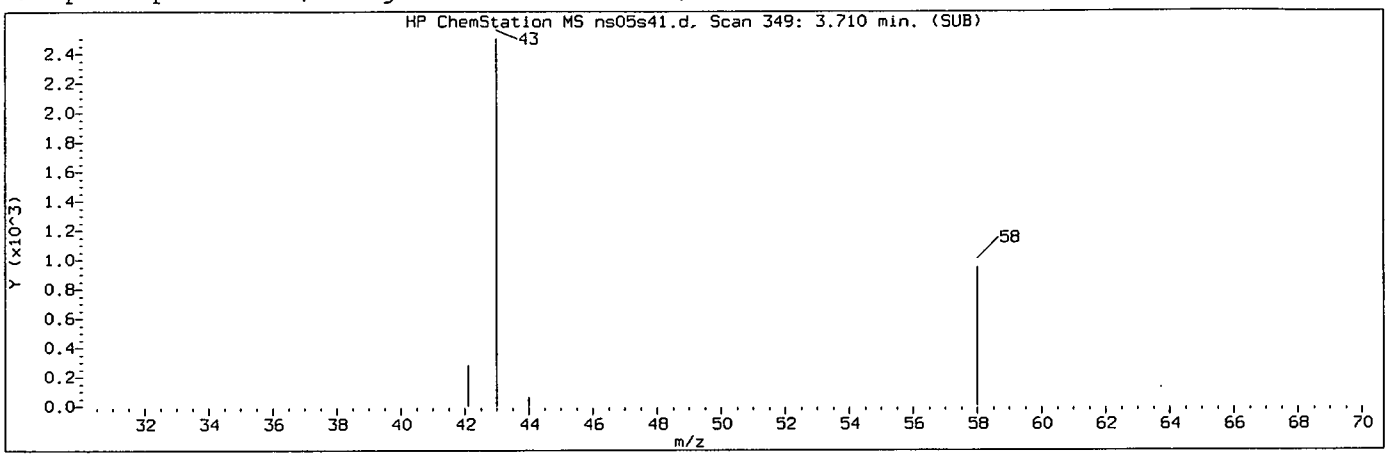
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:31 sag03174

Sample Name: PAT7A Lab Sample ID: 6769192

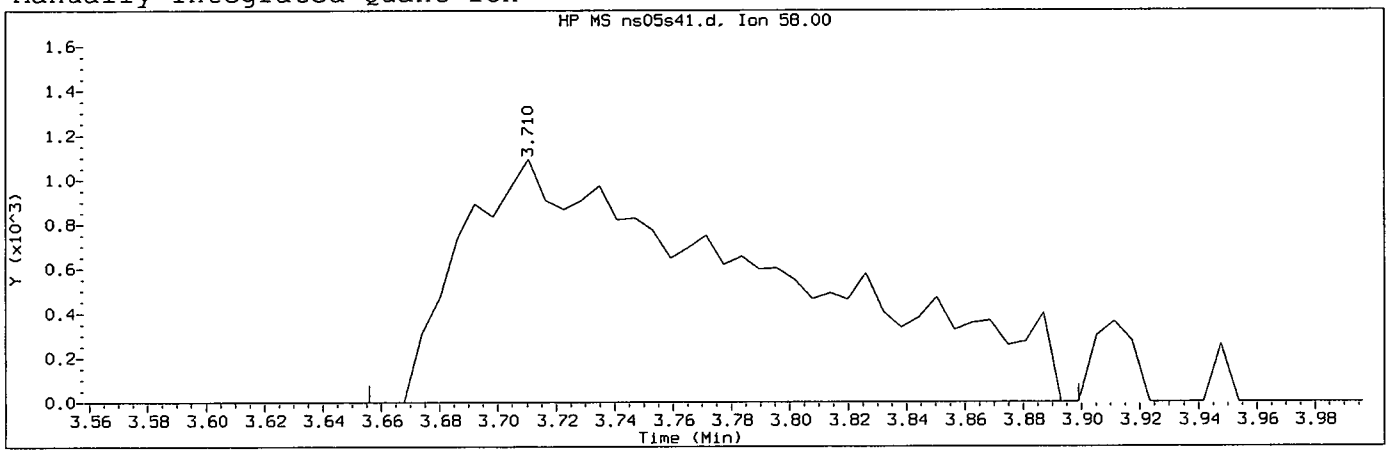
Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 349
Retention Time (minutes)	: 3.710
Relative Retention Time	:-0.01199
Quant Ion	: 58.00
Area (flag)	: 8057M
On-Column Amount (ng)	: 7.0484

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:31.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s41.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:19 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:31 sag03174

Sample Name: PAT7A Lab Sample ID: 6769192

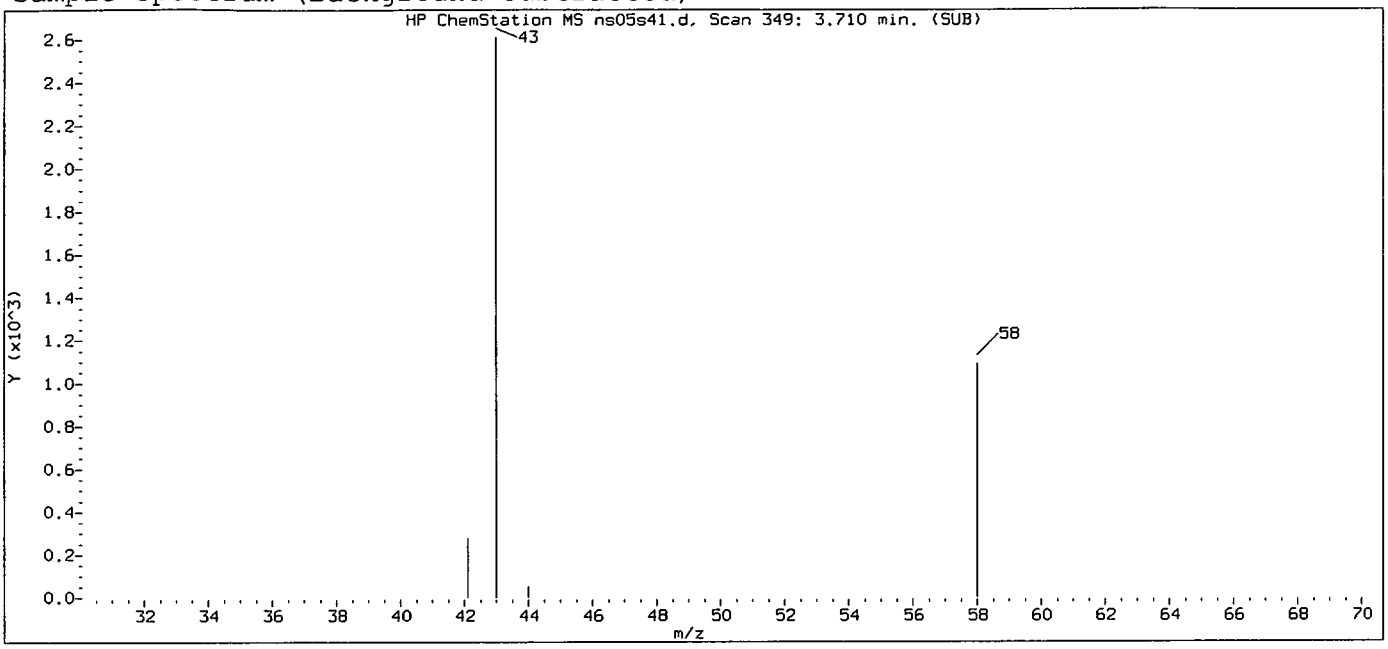
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 349		
Retention Time (minutes)	: 3.710		
Quant Ion	: 58.00		
Area (flag)	: 8057M		
On-Column Amount (ng)	: 7.0484		
Integration start scan	: 339	Integration stop scan:	379
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

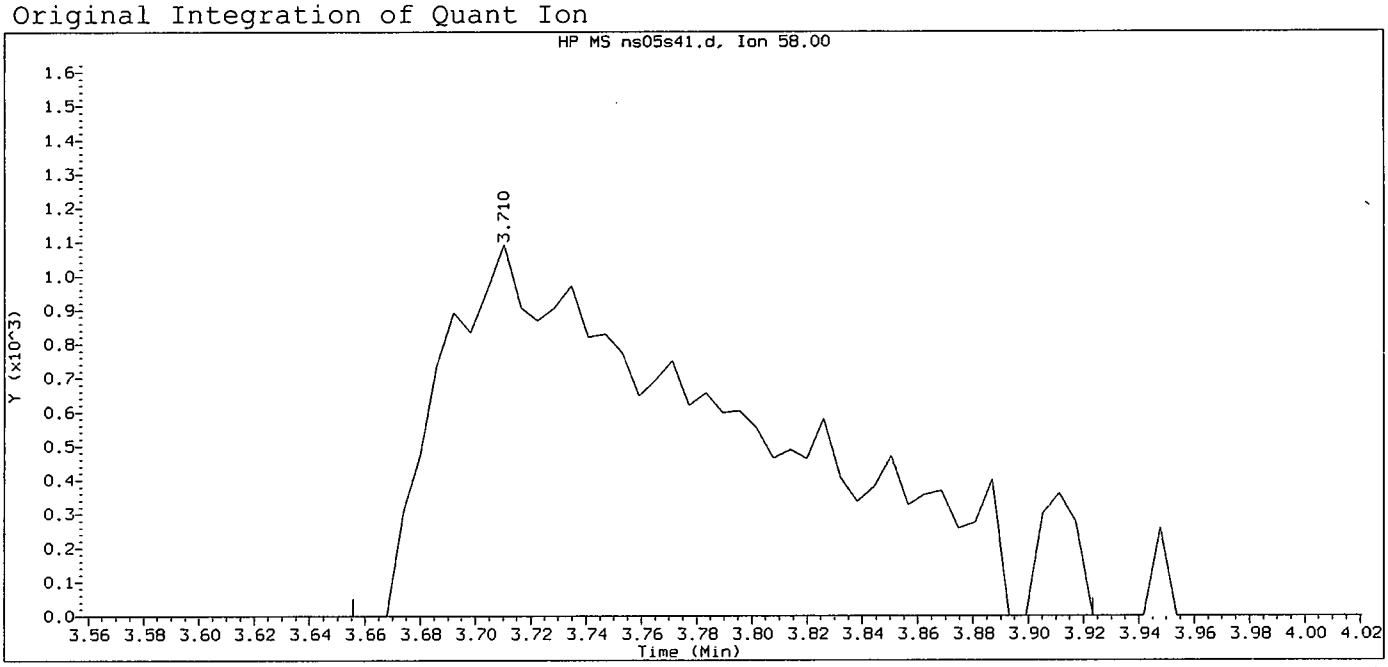
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:31.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s41.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:19 Analyst ID: ERS02237

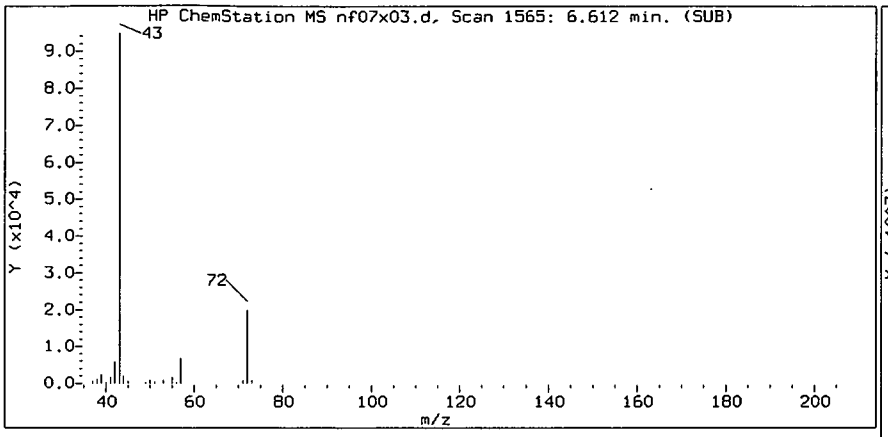
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:39 Automation

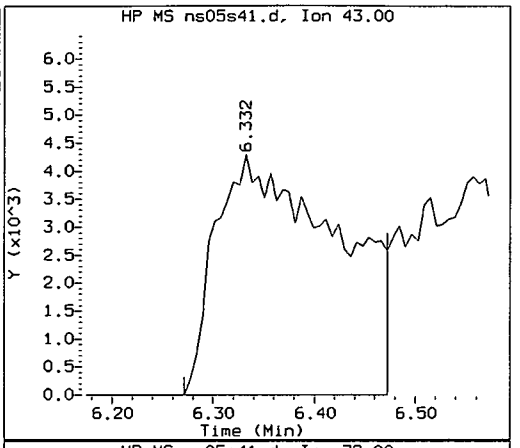
Sample Name: PAT7A Lab Sample ID: 6769192

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 349		
Retention Time (minutes)	: 3.710		
Quant Ion	: 58.00		
Area	: 8399		
On-column Amount (ng)	: 7.3478		
Integration start scan	: 339	Integration stop scan:	383
Y at integration start	: 0	Y at integration end:	0

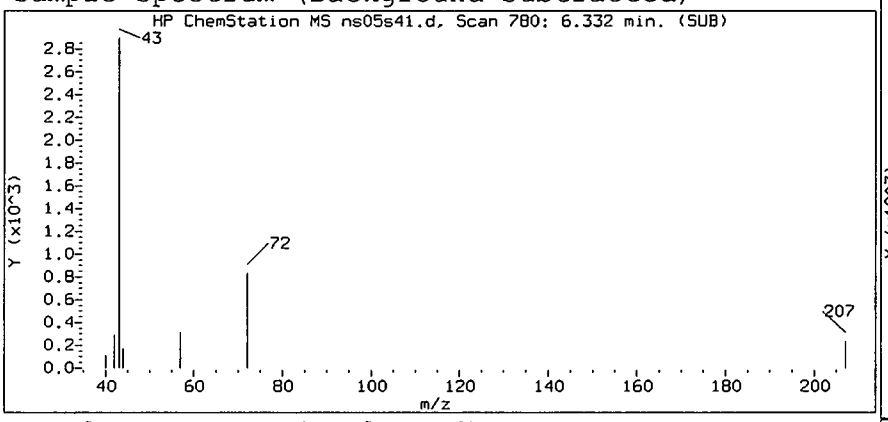
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:31.
Target 3.5 esignature user ID: sag03174

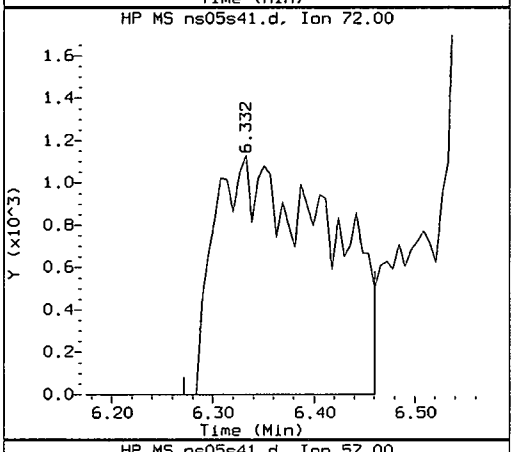
Reference Standard Spectrum for 2-Butanone



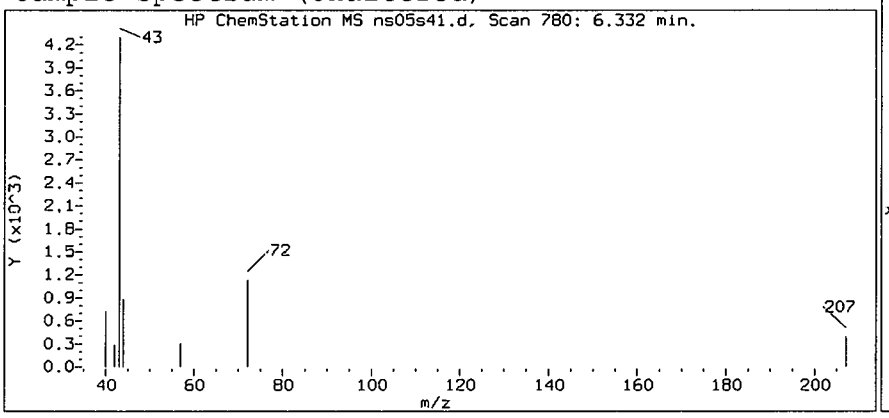


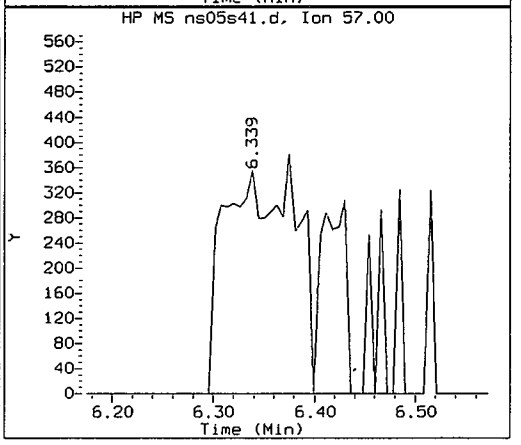
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s41.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:19 Analyst ID: ERS02237

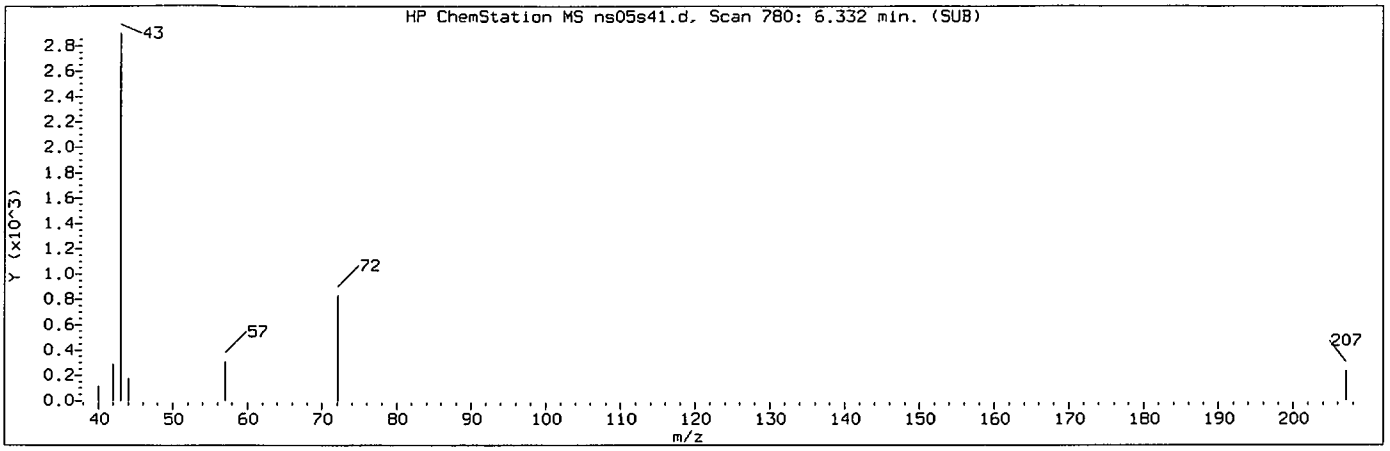
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:31 sag03174

Sample Name: PAT7A Lab Sample ID: 6769192

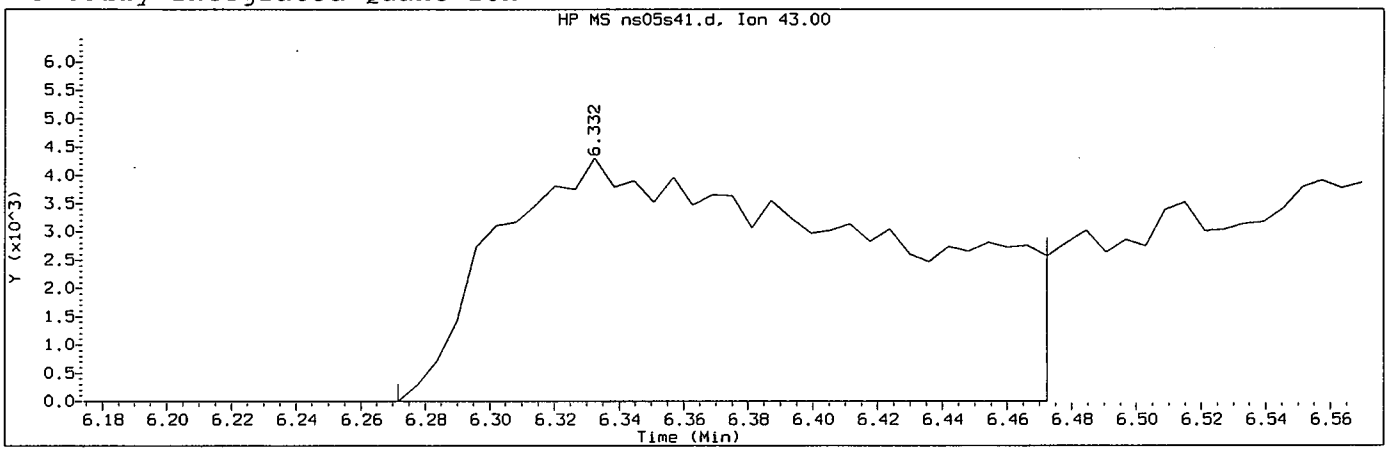
Compound Number	: 42
Compound Name	: 2-Butanone
Scan Number	: 780
Retention Time (minutes)	: 6.332
Relative Retention Time	:-0.02451
Quant Ion	: 43.00
Area (flag)	: 36105AM
On-Column Amount (ng)	: 6.6930

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:31.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s41.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:19 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:31 sag03174

Sample Name: PAT7A Lab Sample ID: 6769192

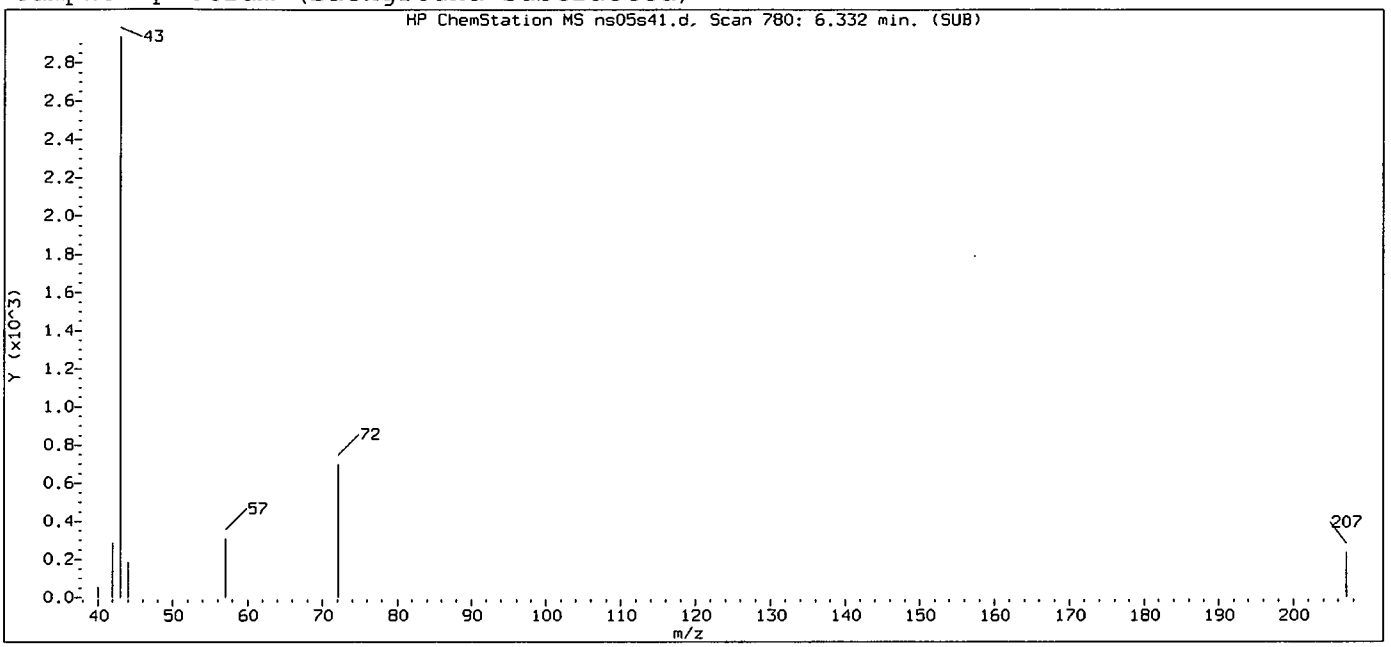
Compound Number : 42
Compound Name : 2-Butanone
Scan Number : 780
Retention Time (minutes): 6.332
Quant Ion : 43.00
Area (flag) : 36105AM
On-Column Amount (ng) : 6.6930
Integration start scan : 769 Integration stop scan: 802
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

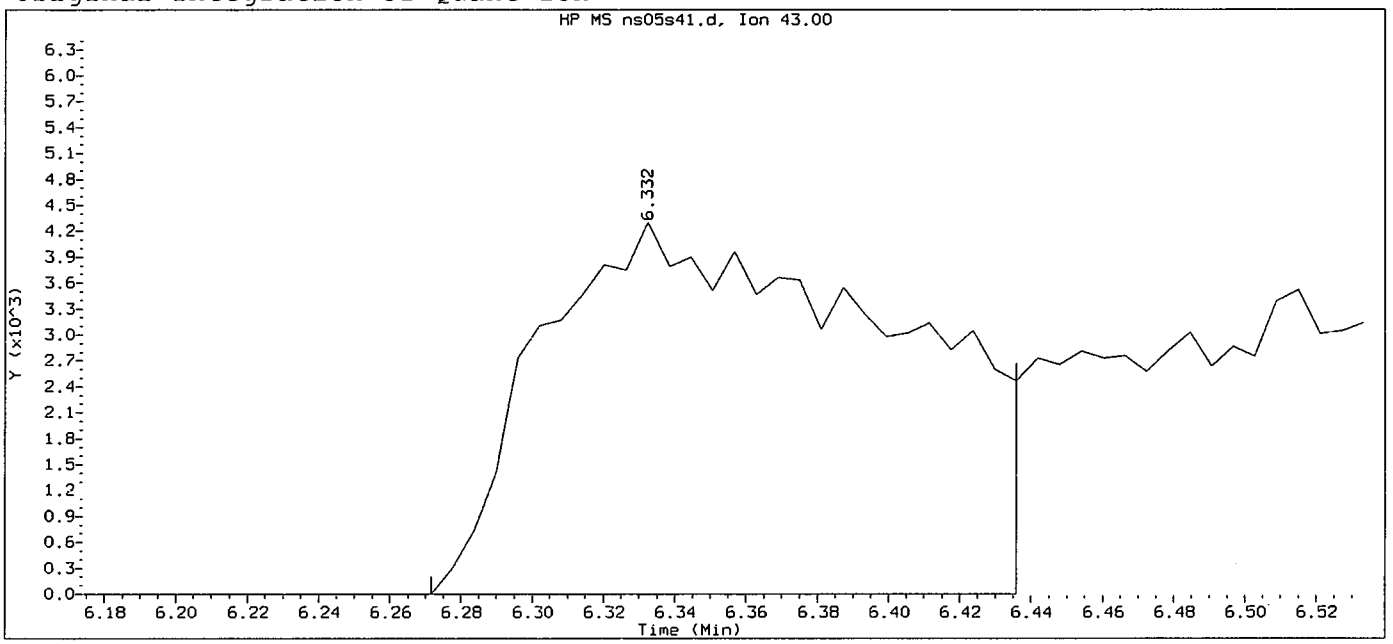
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:31.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s41.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:19 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 17:39 Automation

Sample Name: PAT7A Lab Sample ID: 6769192

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 780		
Retention Time (minutes)	: 6.332		
Quant Ion	: 43.00		
Area	: 29720		
On-column Amount (ng)	: 5.5094		
Integration start scan	: 769	Integration stop scan:	796
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:31.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PATVA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769193

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s42.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	2	J
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	9	
67-64-1	Acetone	14	J
75-09-2	Methylene Chloride	3	J
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	47	
156-59-2	cis-1,2-Dichloroethene	26	
78-93-3	2-Butanone	10	U
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	95	
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	3	J
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	41	
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	1	J
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PATVA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769193

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s42.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-86-1	Bromobenzene		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PATVA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769193

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s42.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PATVA

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769193

Data file: /chem/HP07159.i/12sep05b.b/ns05s42.d
Injection date and time: **05-SEP-2012 17:42**
Data file Sample Info. Line: PATVA;6769193;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.246	(-0.009)	437	65	318279	(-16)	250.00	
70) Fluorobenzene	7.714	(-0.003)	1007	96	1343036	(-11)	50.00	
98) Chlorobenzene-d5	11.181	(-0.015)	1577	117	980562	(-8)	50.00	
130) 1,4-Dichlorobenzene-d4	13.061	(-0.033)	1886	152	549973	(-13)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.795	(-0.001)	113	320333	53.358	107%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.257	(-0.001)	102	82989	51.684	103%		77 - 113
86) Toluene-d8	(2)	9.733	(0.000)	98	1296773	47.268	95%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.185	(-0.001)	95	472304	47.352	95%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)	2.214	(0.002)	62	19177	2.409	2.41		J	1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.571	(0.000)	96	48288	8.838	8.84			0.8	5
19) Acetone	(1)	3.686	(-0.008)	58	15516M	13.767	13.77		J	6	20
25) Methylene Chloride	(1)	4.222	(-0.000)	84	22679M	3.260	3.26		J	2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)	5.262	(-0.000)	63	566274	47.161	47.16			1	5
40) cis-1,2-Dichloroethene	(1)	6.132	(-0.001)	96	190684	26.495	26.50			0.8	5
42) 2-Butanone	(1)				Not Detected					3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)	6.826	(-0.000)	97	885876	95.072	95.07			0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)	7.361	(-0.003)	78	79887	2.896	2.90		J	0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)	8.206	(-0.000)	95	280299	41.072	41.07			1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)	9.831	(-0.001)	92	23826	1.282	1.28		J	0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

M = Compound was manually integrated.

Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42. Target 3.5 esignature user ID: sag03174

PATVA

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769193

Data file: /chem/HP07159.i/12sep05b.b/ns05s42.d
Injection date and time: **05-SEP-2012 17:42**
Data file Sample Info. Line: PATVA;6769193;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

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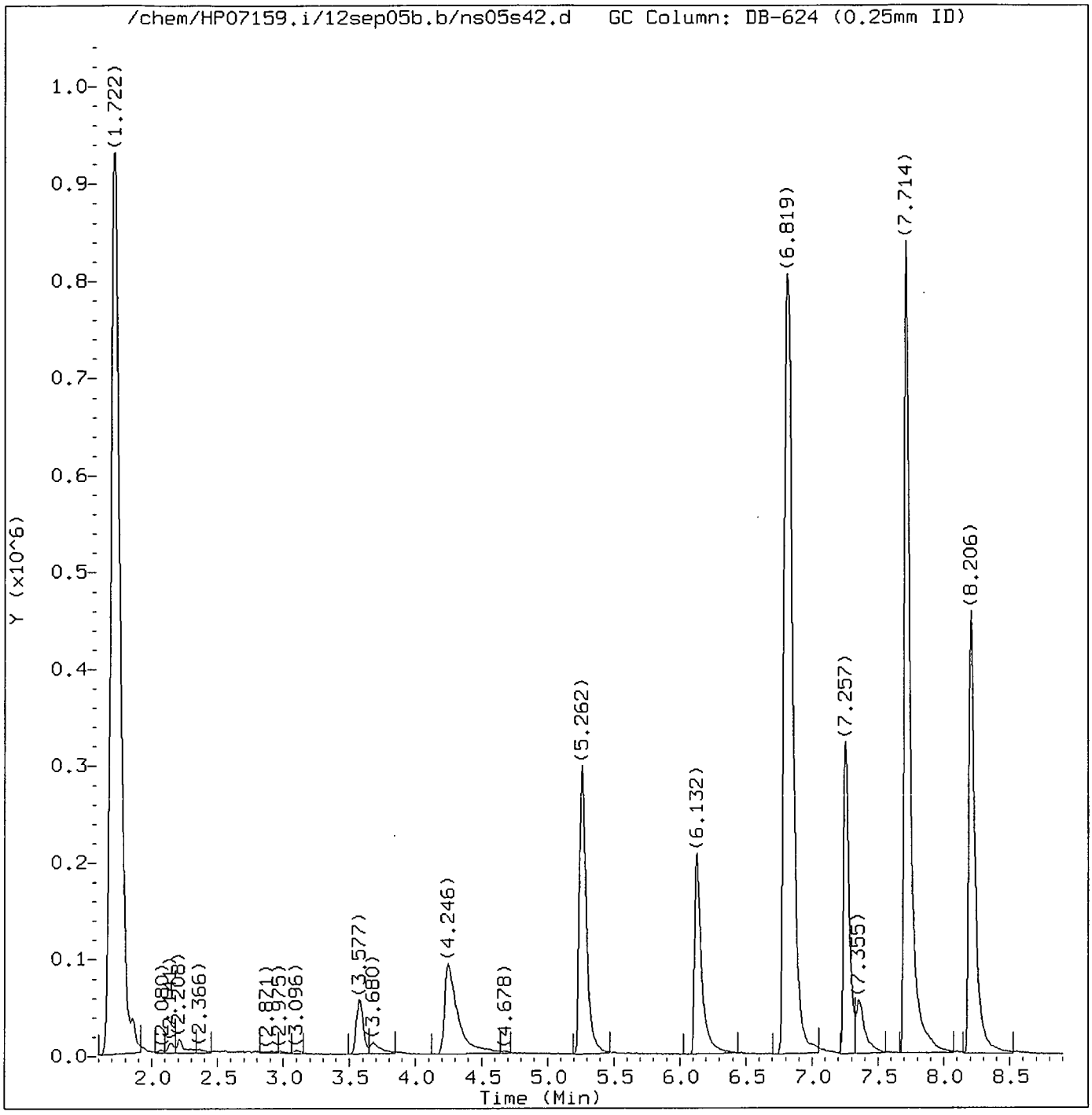
Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

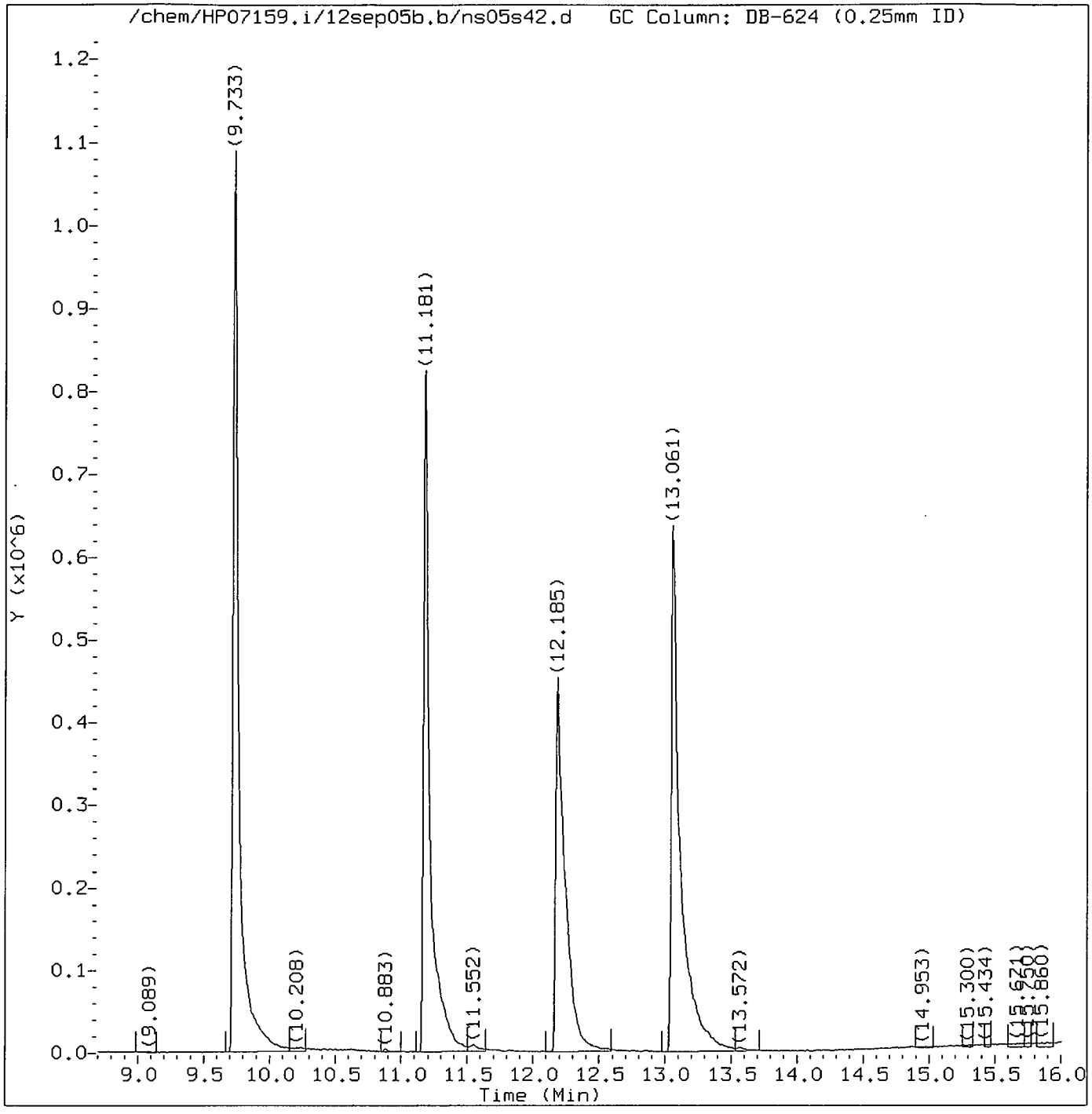
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

Digitally signed by Sarah A. Guill
on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

Digitally signed by Sarah A. Guill
on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

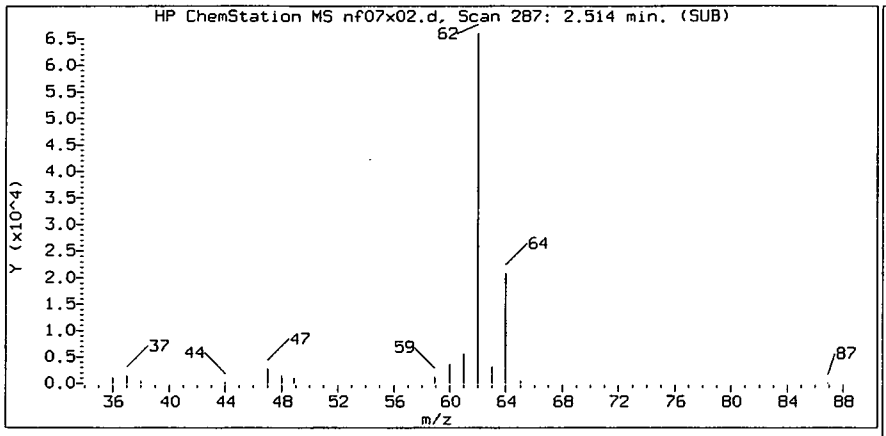
Sample Name: PATVA Lab Sample ID: 6769193

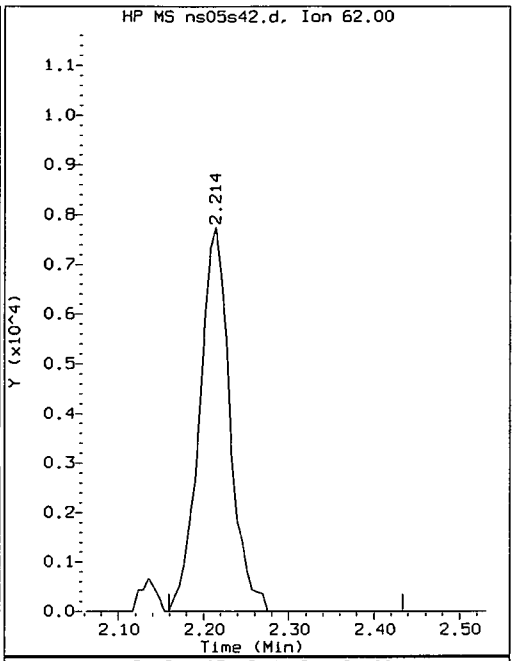
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
4) Vinyl Chloride	(1)	2.214	62	19177	2.409
16) 1,1-Dichloroethene	(1)	3.571	96	48288	8.838
19) Acetone	(1)	3.686	58	15516M	13.767
25) Methylene Chloride	(1)	4.222	84	22679M	3.260
26)*t-Butyl Alcohol-d10	(4)	4.246	65	318279	250.000
36) 1,1-Dichloroethane	(1)	5.262	63	566274	47.161
40) cis-1,2-Dichloroethene	(1)	6.132	96	190684	26.495
51)$Dibromofluoromethane	(1)	6.795	113	320333	53.358
53) 1,1,1-Trichloroethane	(1)	6.826	97	885876	95.072
62)$1,2-Dichloroethane-d4	(1)	7.257	102	82989	51.684
65) Benzene	(1)	7.361	78	79887	2.896
70)*Fluorobenzene	(1)	7.714	96	1343036	50.000
74) Trichloroethene	(1)	8.206	95	280299	41.072
86)$Toluene-d8	(2)	9.733	98	1296773	47.268
88) Toluene	(2)	9.831	92	23826	1.282
98)*Chlorobenzene-d5	(2)	11.181	117	980562	50.000
114)$4-Bromofluorobenzene	(2)	12.185	95	472304	47.352
130)*1,4-Dichlorobenzene-d4	(3)	13.061	152	549973	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

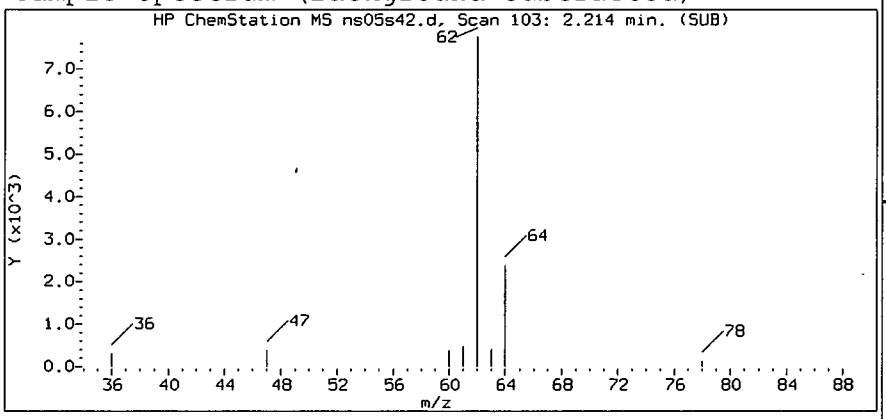
Digitally signed by Sarah A. Guill
on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

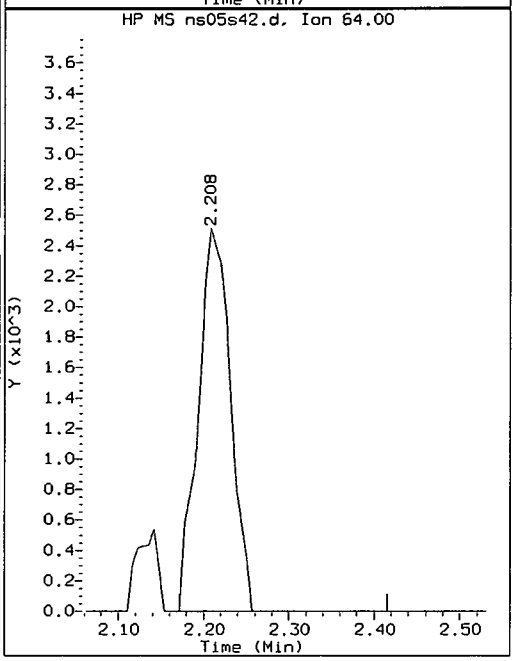
Reference Standard Spectrum for Vinyl Chloride



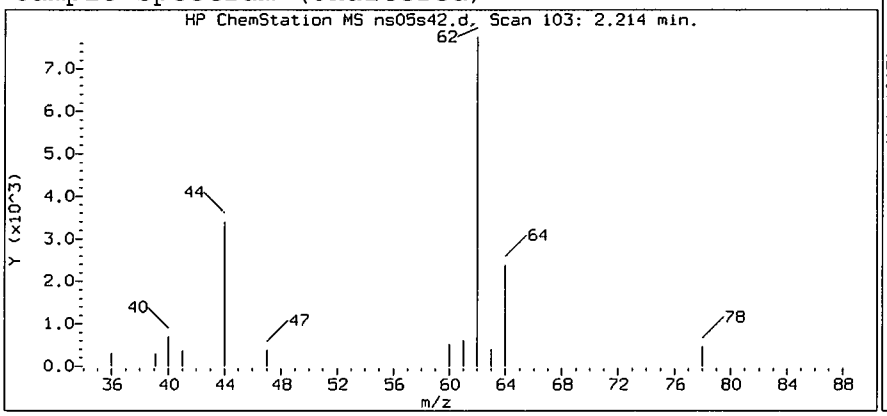


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

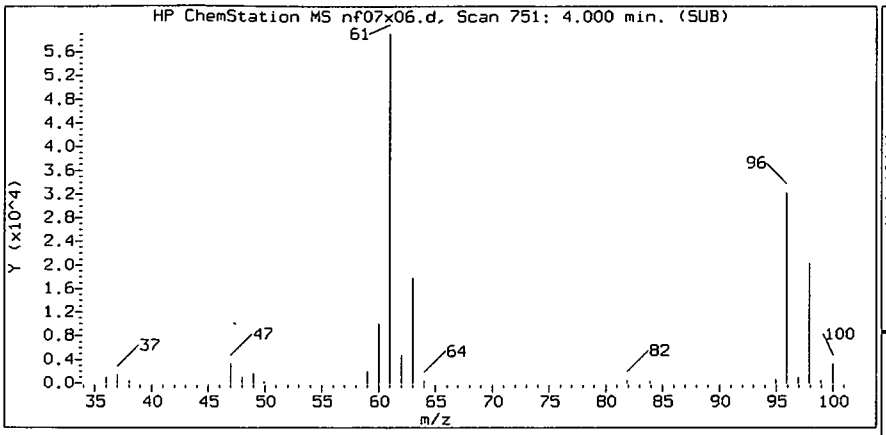
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

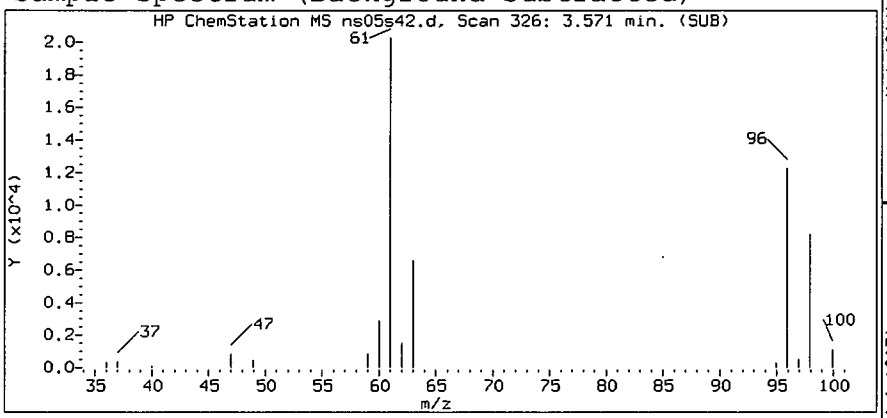
Compound Number	: 4
Compound Name	: Vinyl Chloride
Scan Number	: 103
Retention Time (minutes)	: 2.214
Relative Retention Time	: 0.00212
Quant Ion	: 62.00
Area (flag)	: 19177
On-Column Amount (ng)	: 2.4093

Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

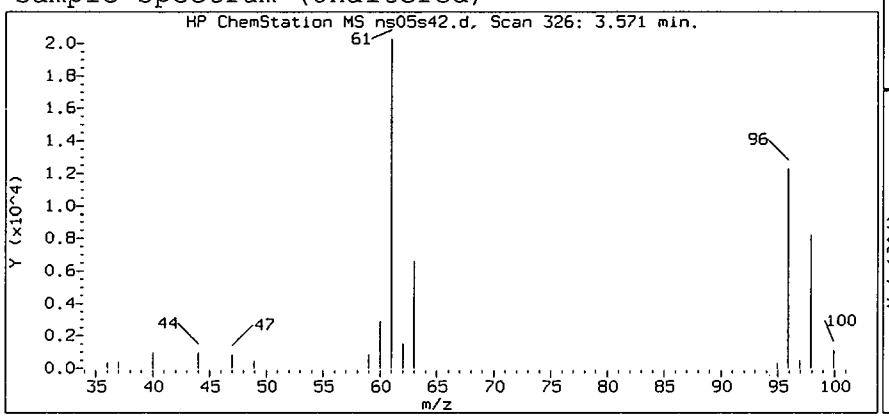
Reference Standard Spectrum for 1,1-Dichloroethene

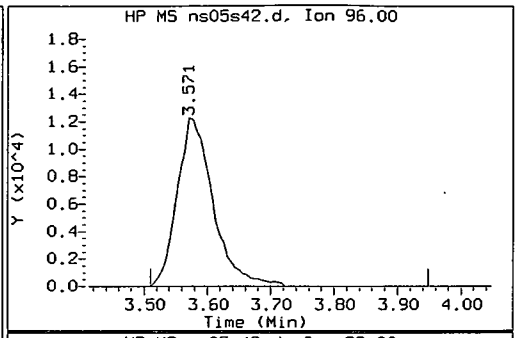


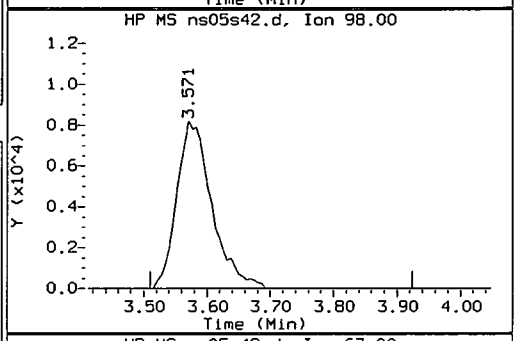
Sample Spectrum (Background Subtracted)

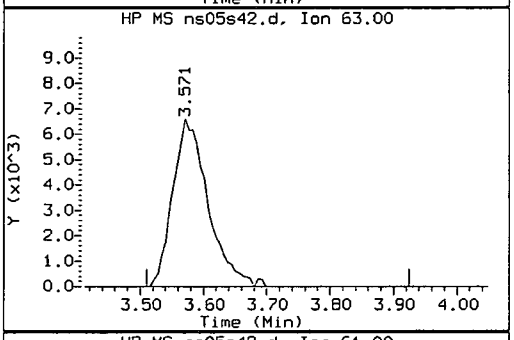


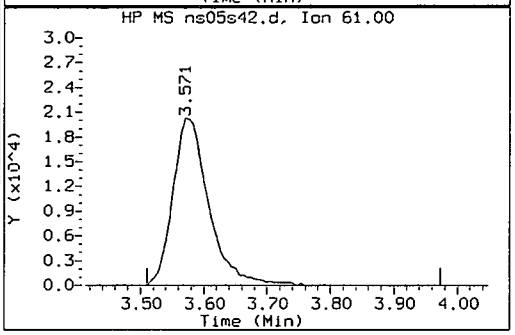
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

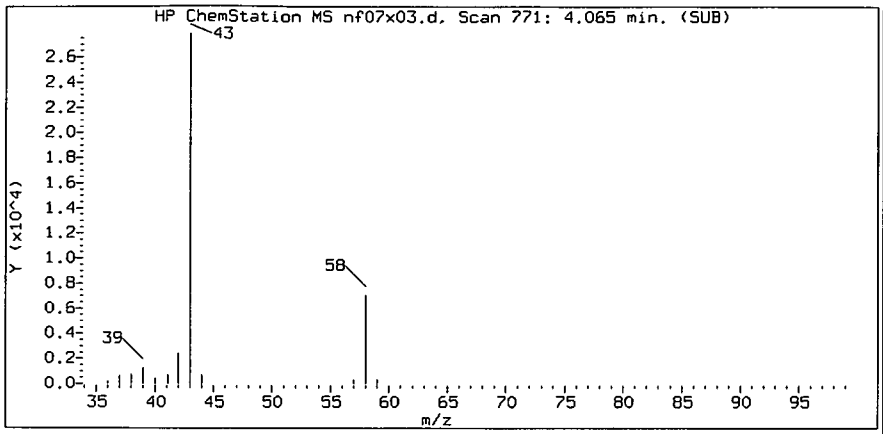
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

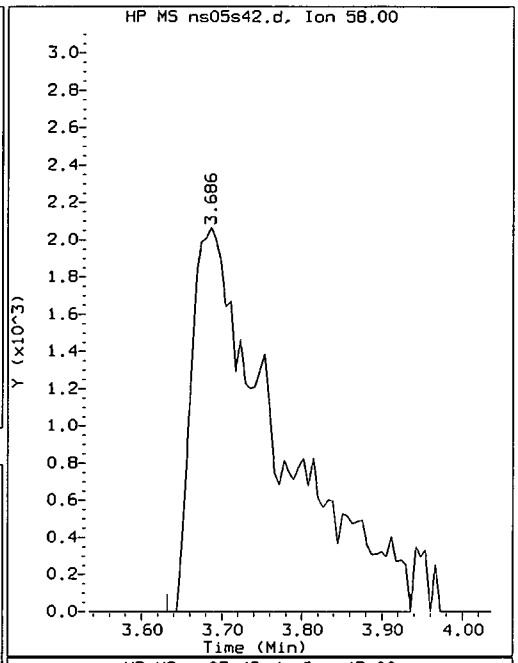
Sample Name: PATVA Lab Sample ID: 6769193

Compound Number	: 16
Compound Name	: 1,1-Dichloroethene
Scan Number	: 326
Retention Time (minutes)	: 3.571
Relative Retention Time	: 0.00060
Quant Ion	: 96.00
Area (flag)	: 48288
On-Column Amount (ng)	: 8.8384

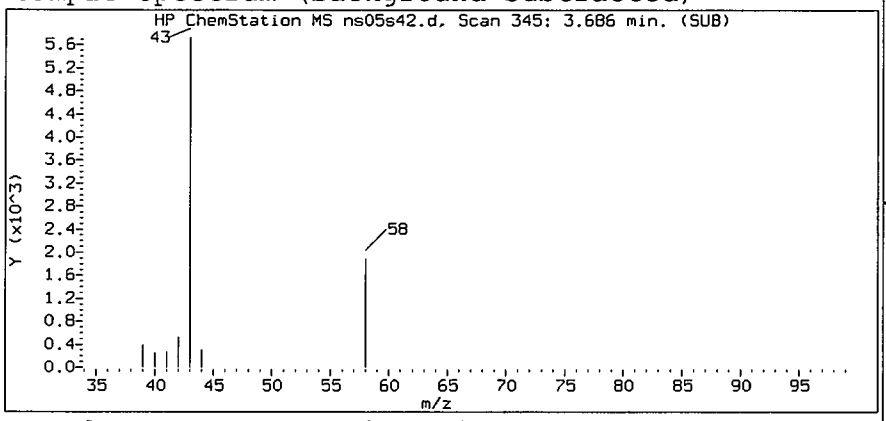
Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

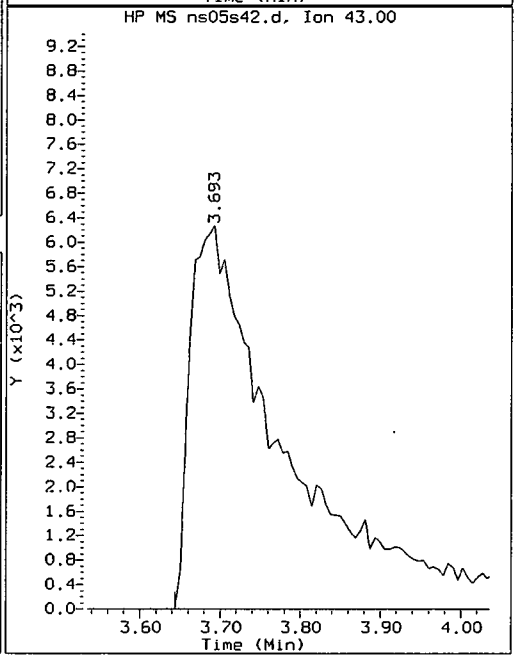
Reference Standard Spectrum for Acetone



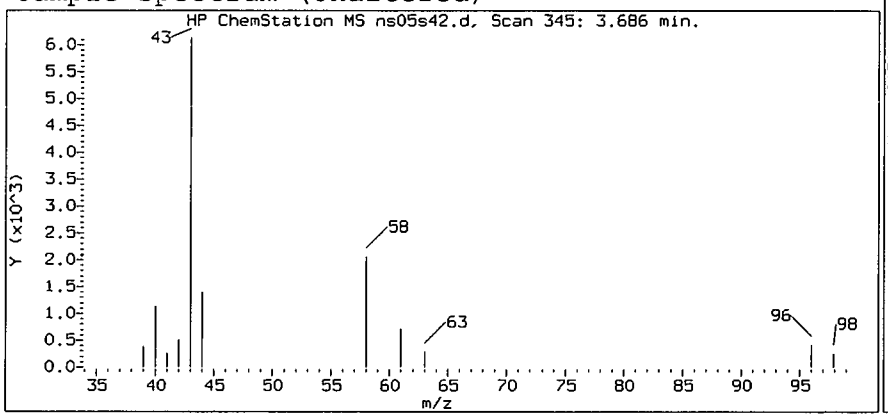


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

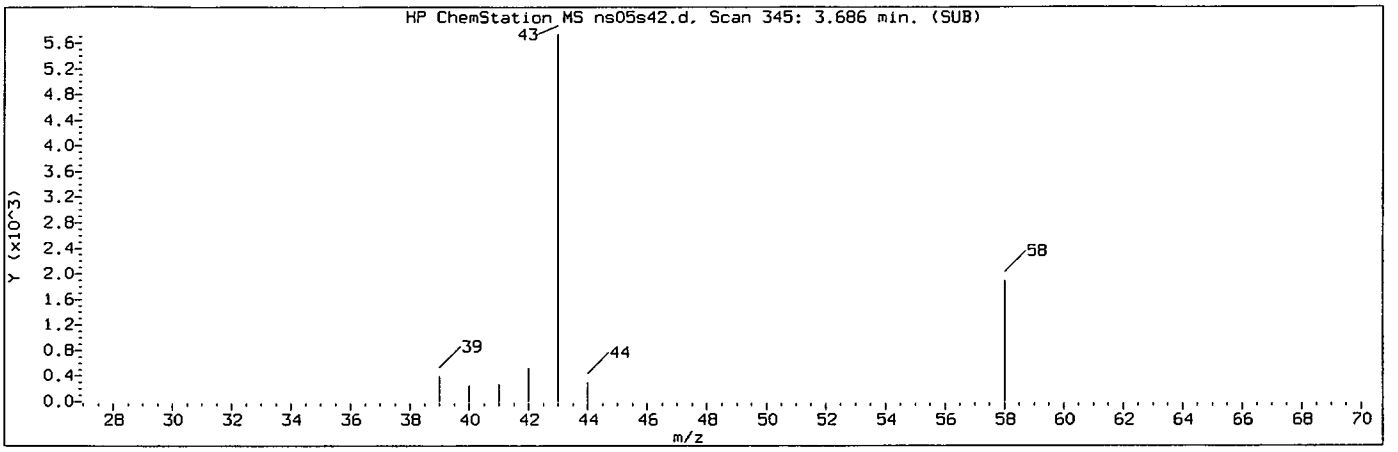
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

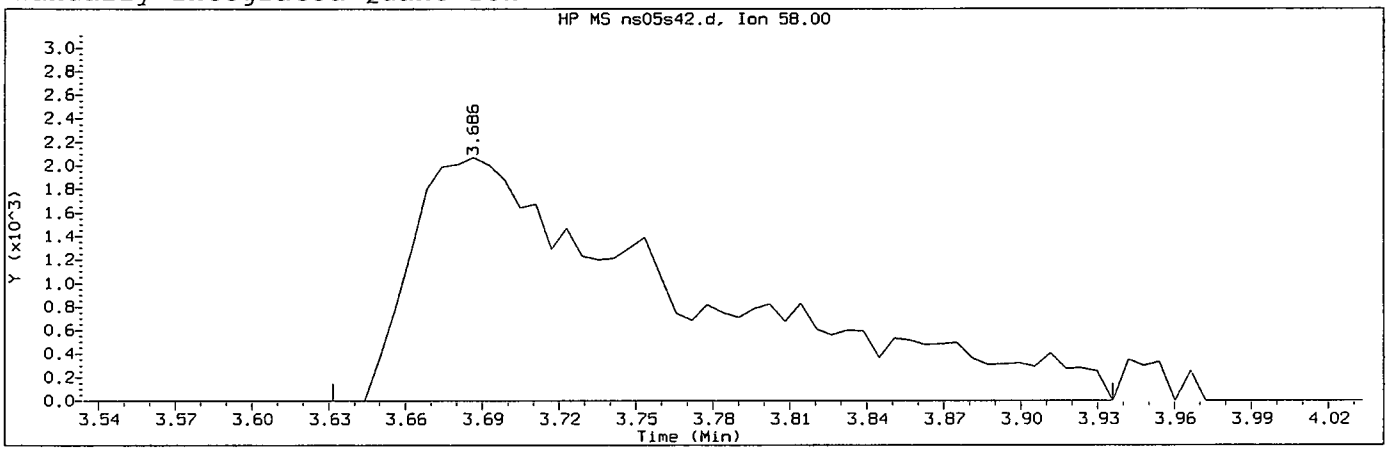
Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 345
Retention Time (minutes)	: 3.686
Relative Retention Time	:-0.00886
Quant Ion	: 58.00
Area (flag)	: 15516M
On-Column Amount (ng)	: 13.7672

Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

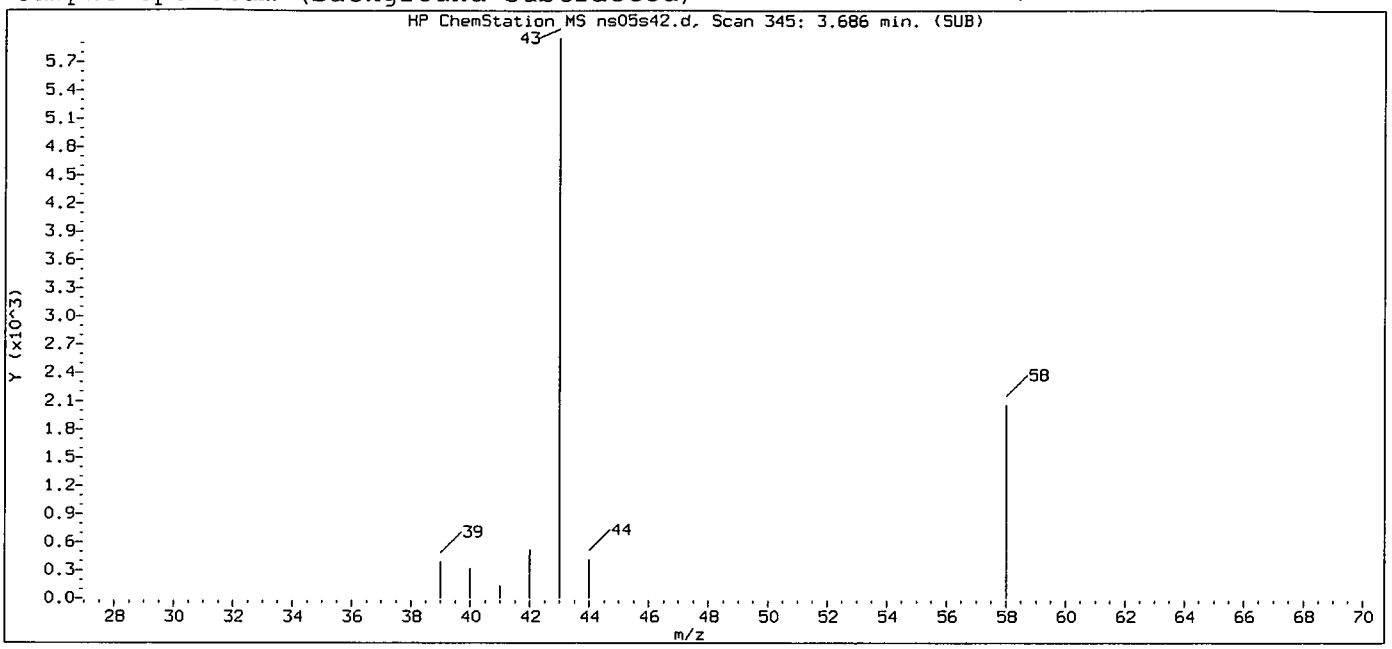
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 345		
Retention Time (minutes)	: 3.686		
Quant Ion	: 58.00		
Area (flag)	: 15516M		
On-Column Amount (ng)	: 13.7672		
Integration start scan	: 335	Integration stop scan:	385
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

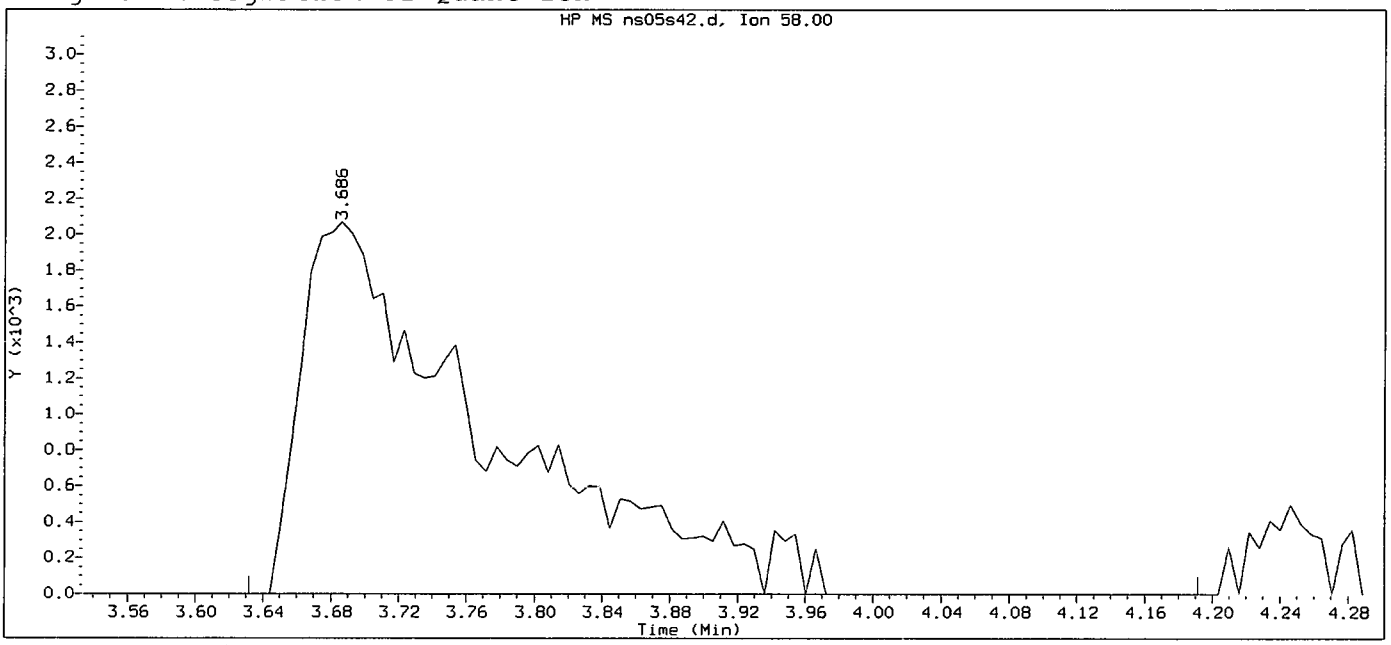
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

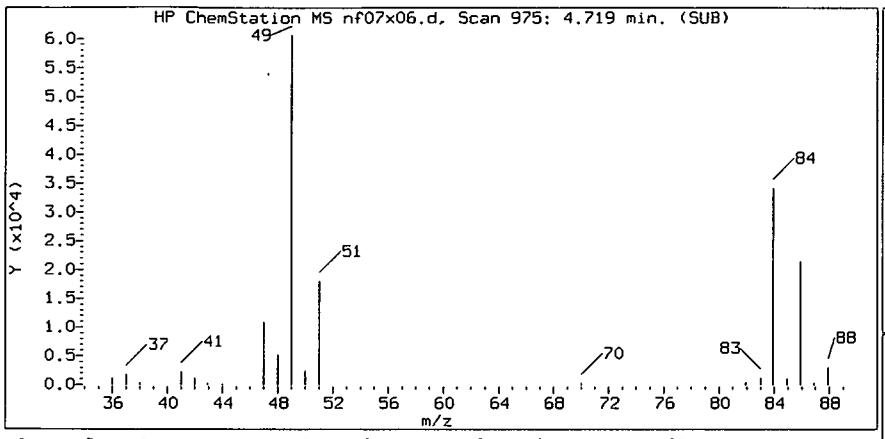
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 18:03 Automation

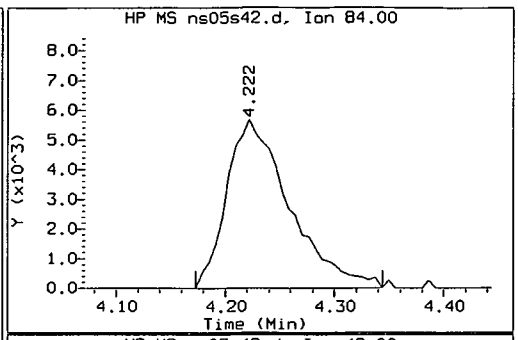
Sample Name: PATVA Lab Sample ID: 6769193

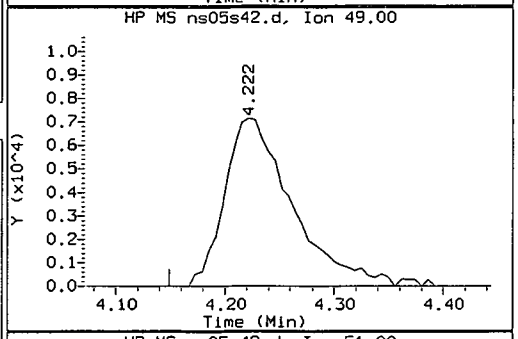
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 345		
Retention Time (minutes)	: 3.686		
Quant Ion	: 58.00		
Area	: 15968		
On-column Amount (ng)	: 14.1676		
Integration start scan	: 335	Integration stop scan:	427
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

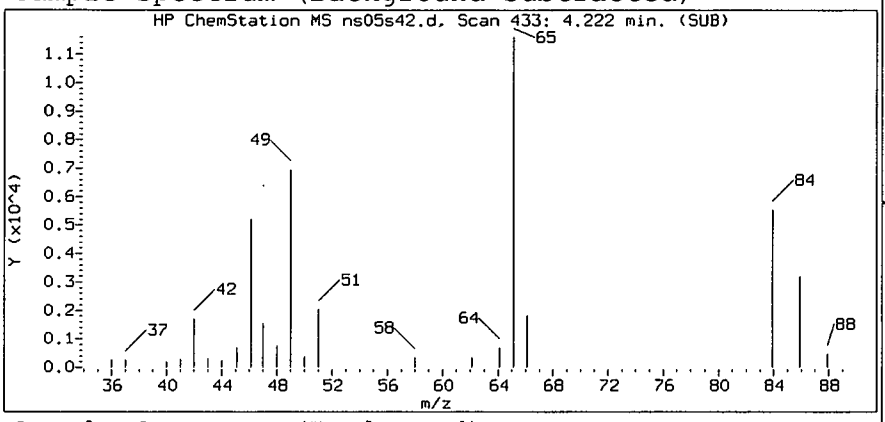
Reference Standard Spectrum for Methylene Chloride

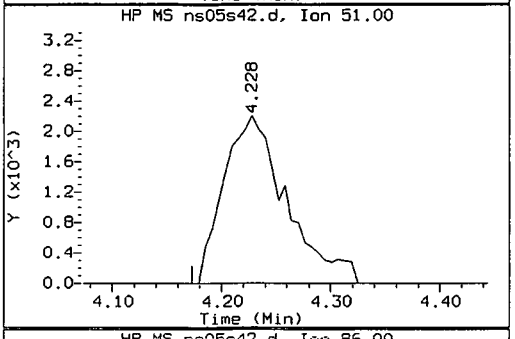




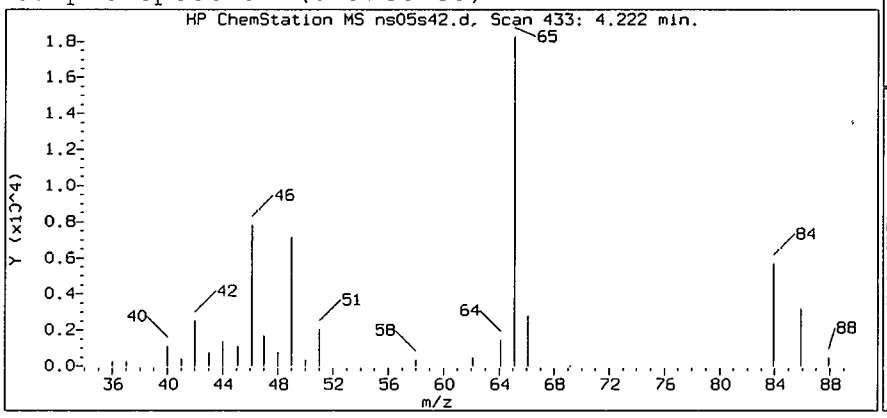


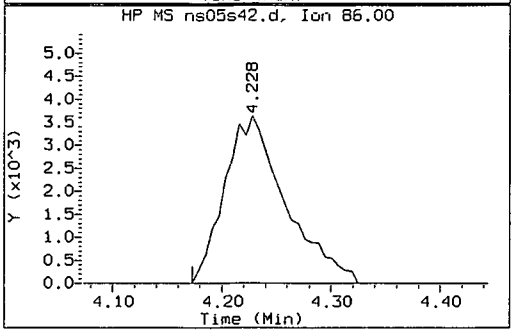
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

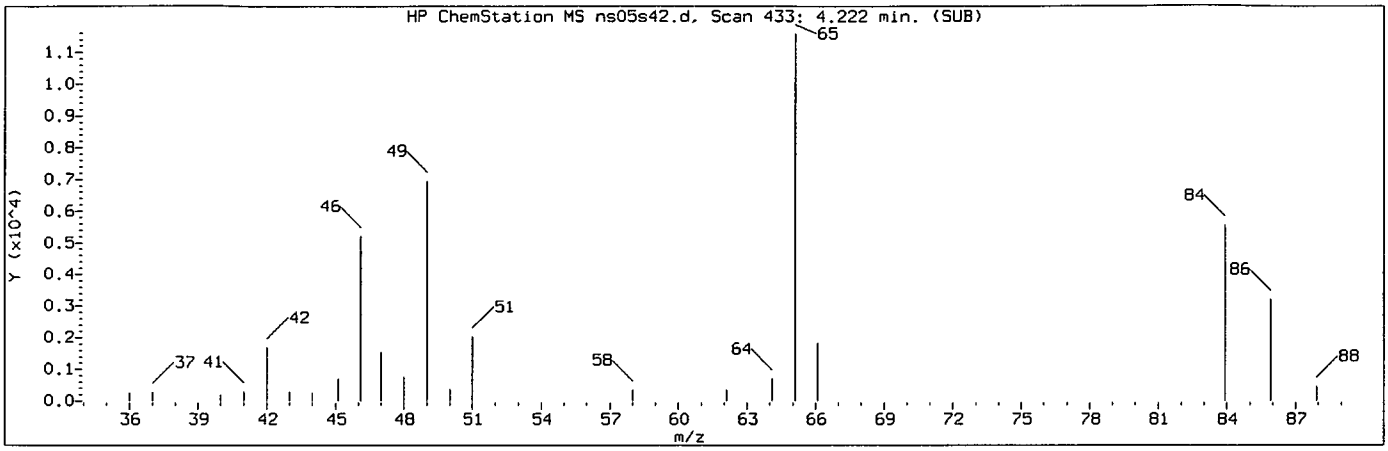
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

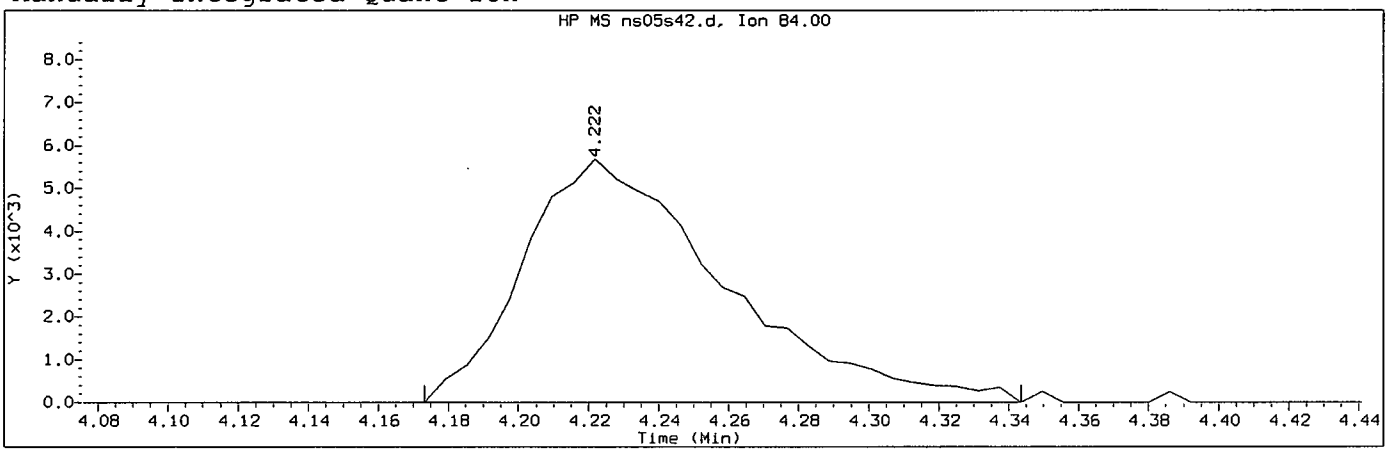
Compound Number : 25
Compound Name : Methylene Chloride
Scan Number : 433
Retention Time (minutes): 4.222
Relative Retention Time :-0.00095
Quant Ion : 84.00
Area (flag) : 22679M
On-Column Amount (ng) : 3.2599

Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

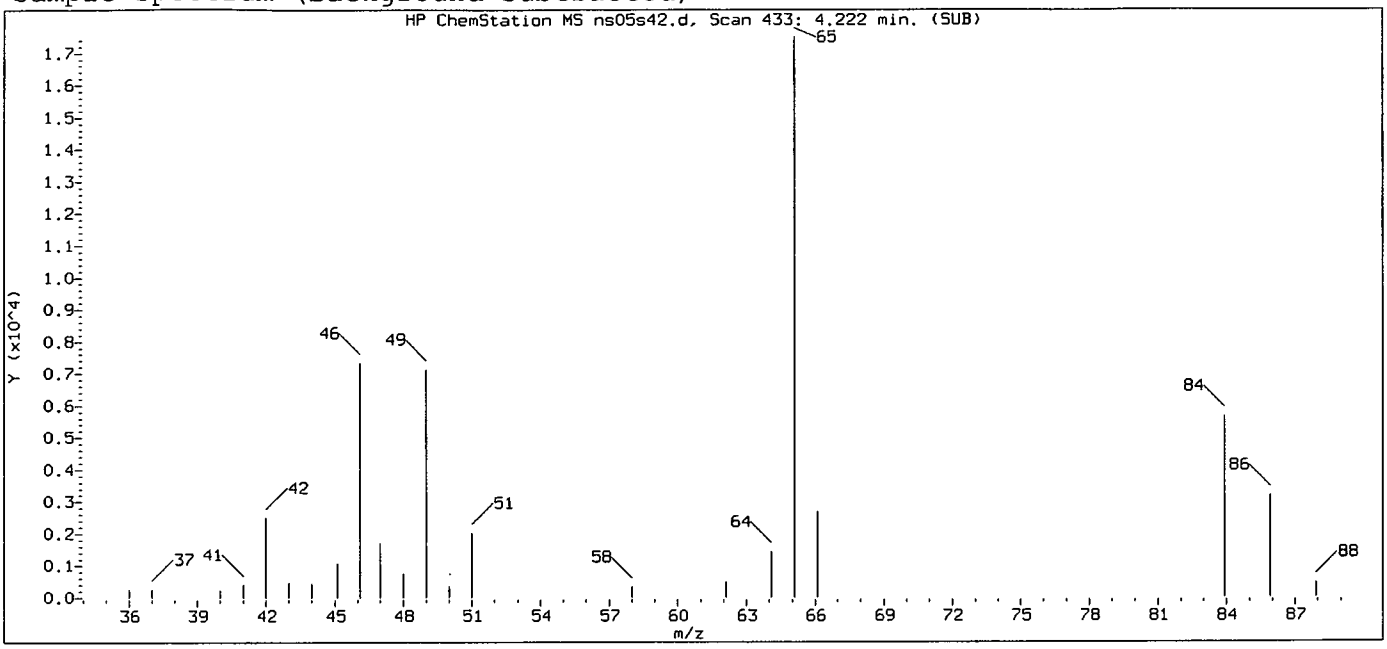
Compound Number	: 25		
Compound Name	: Methylene Chloride		
Scan Number	: 433		
Retention Time (minutes)	: 4.222		
Quant Ion	: 84.00		
Area (flag)	: 22679M		
On-Column Amount (ng)	: 3.2599		
Integration start scan	: 424	Integration stop scan:	452
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

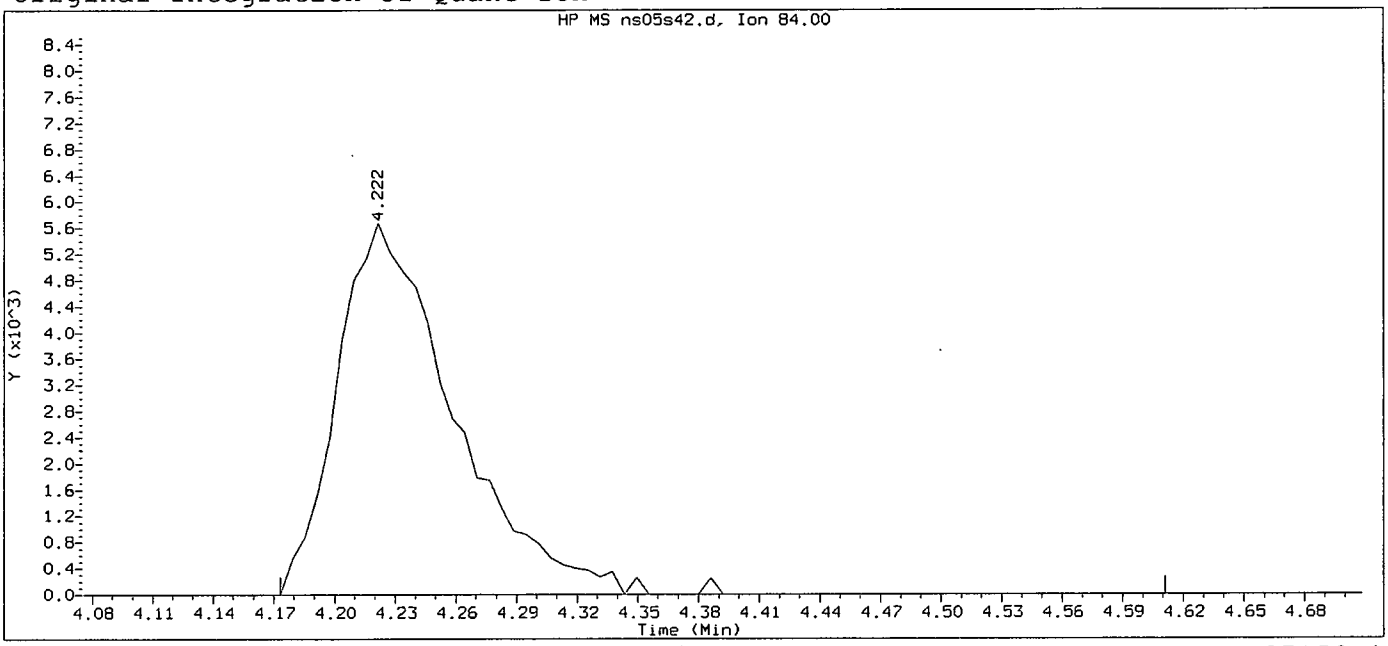
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

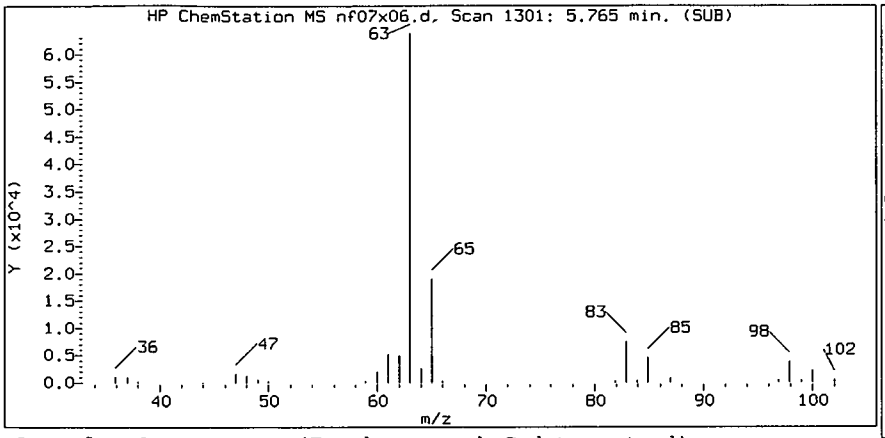
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 18:03 Automation

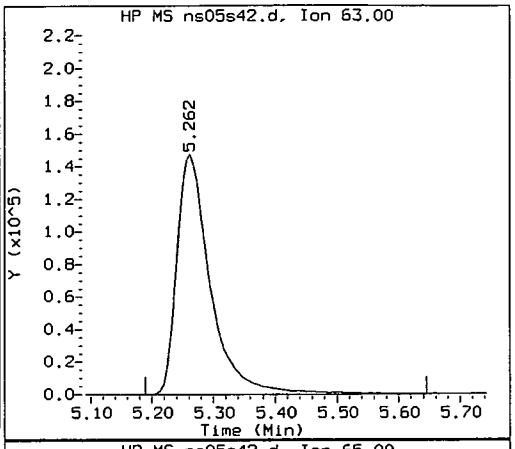
Sample Name: PATVA Lab Sample ID: 6769193

Compound Number	: 25		
Compound Name	: Methylene Chloride		
Scan Number	: 433		
Retention Time (minutes)	: 4.222		
Quant Ion	: 84.00		
Area	: 22866		
On-column Amount (ng)	: 3.2867		
Integration start scan	: 424	Integration stop scan:	496
Y at integration start	: 0	Y at integration end:	0

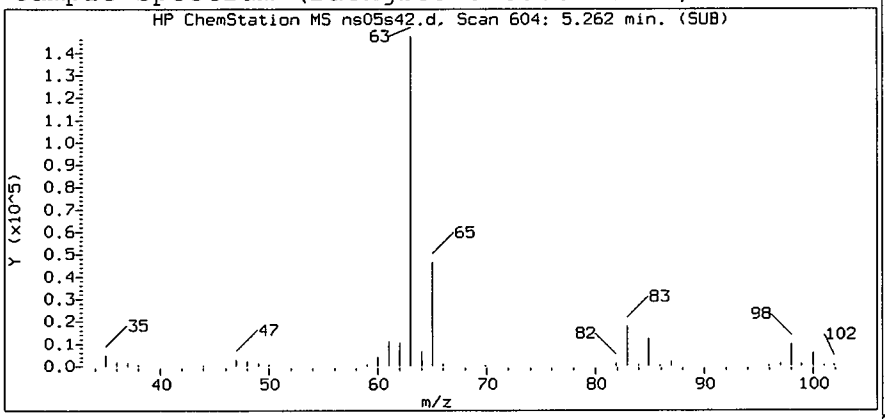
Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

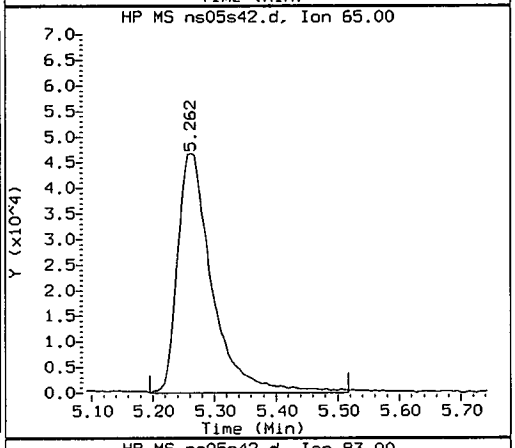
Reference Standard Spectrum for 1,1-Dichloroethane



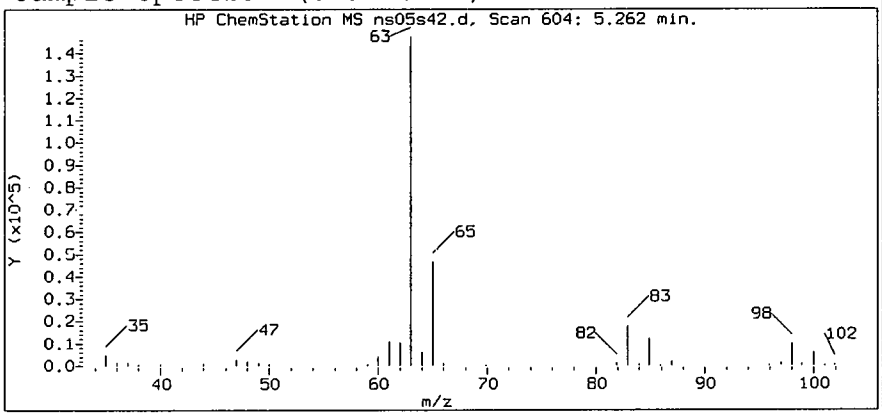


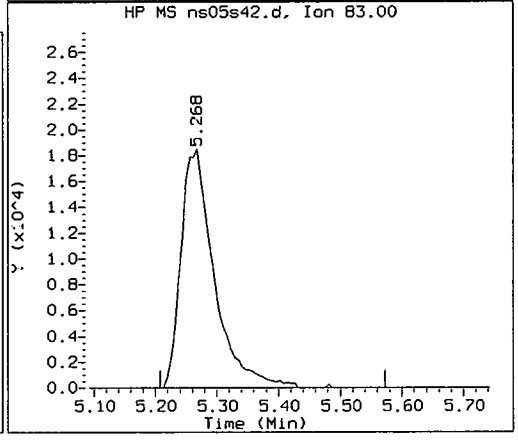
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

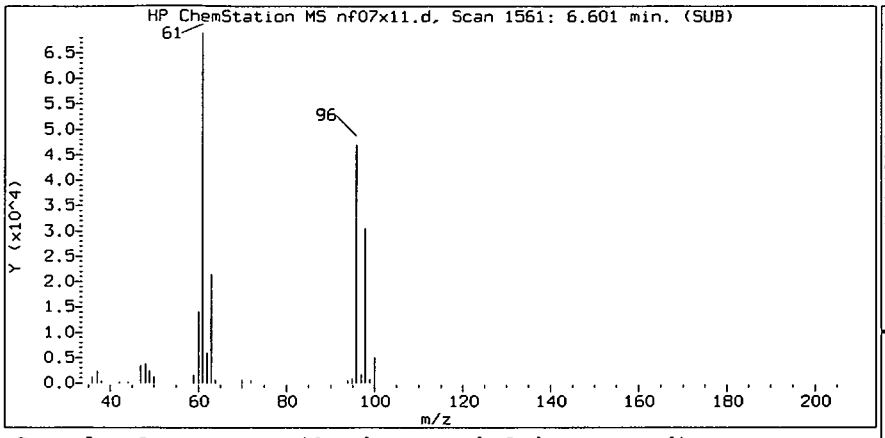
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

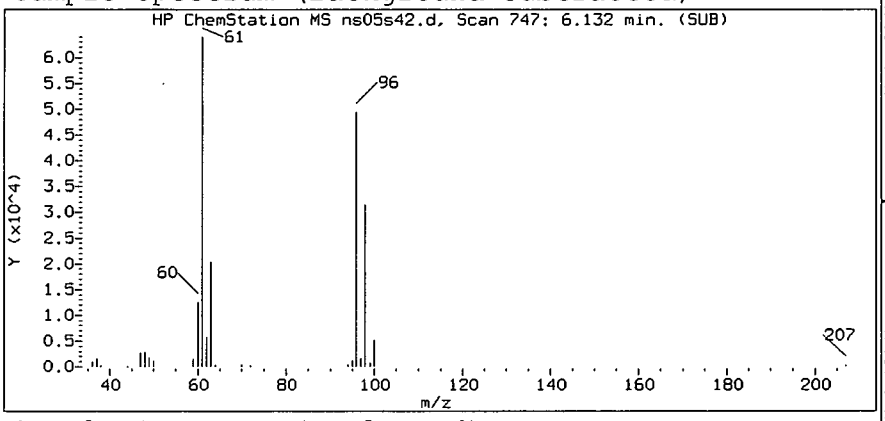
Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 604
Retention Time (minutes): 5.262
Relative Retention Time :-0.00090
Quant Ion : 63.00
Area (flag) : 566274
On-Column Amount (ng) : 47.1614

Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

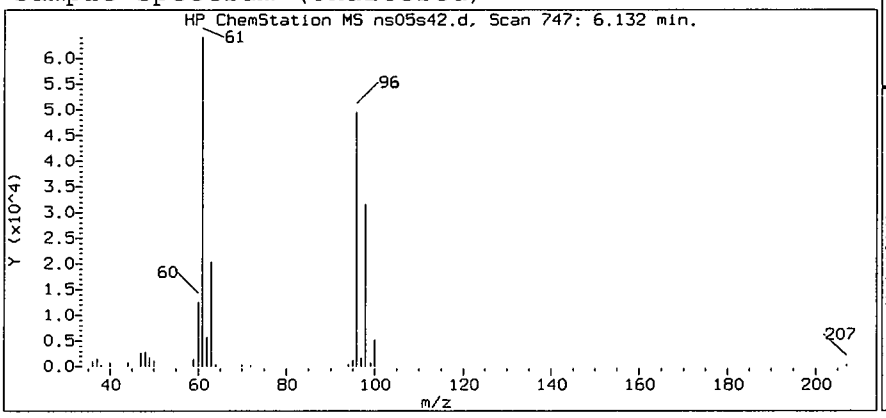
Reference Standard Spectrum for cis-1,2-Dichloroethene

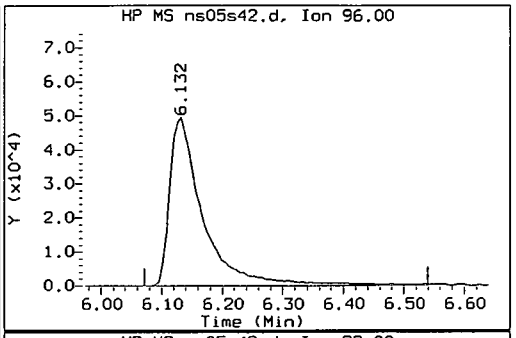


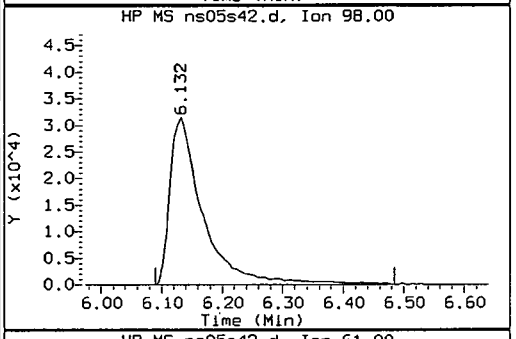
Sample Spectrum (Background Subtracted)

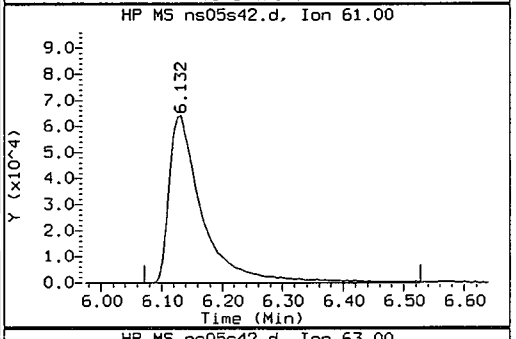


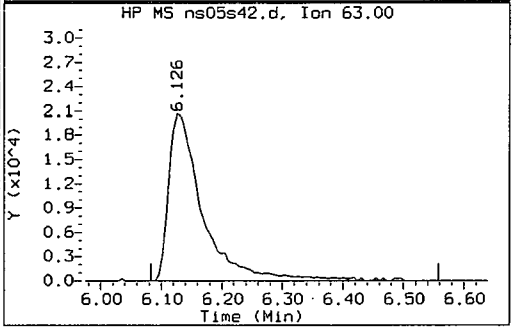
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

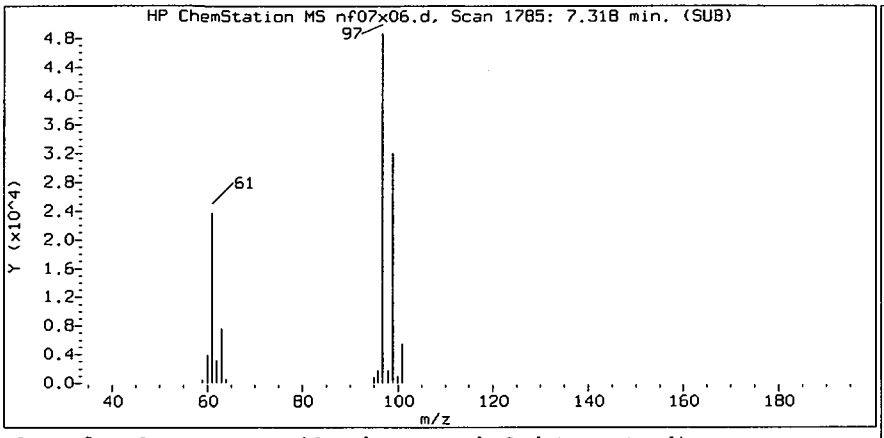
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

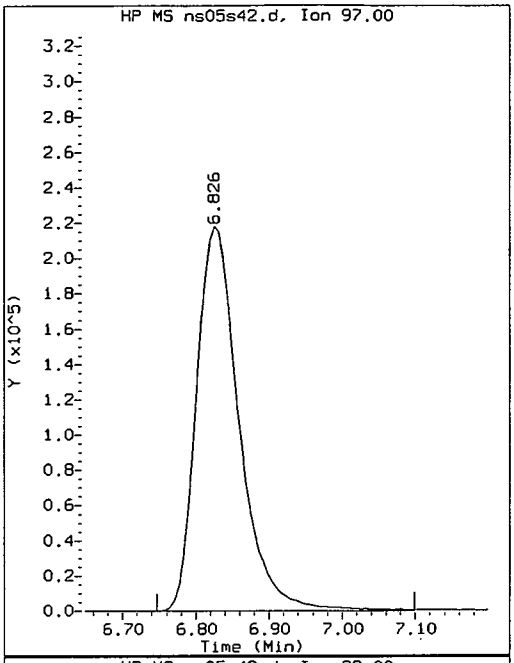
Sample Name: PATVA Lab Sample ID: 6769193

Compound Number : 40
Compound Name : cis-1,2-Dichloroethene
Scan Number : 747
Retention Time (minutes): 6.132
Relative Retention Time :-0.00165
Quant Ion : 96.00
Area (flag) : 190684
On-Column Amount (ng) : 26.4952

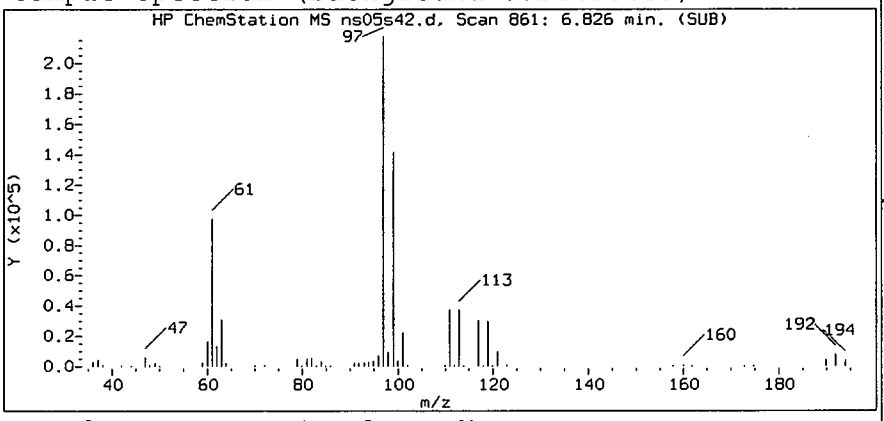
Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

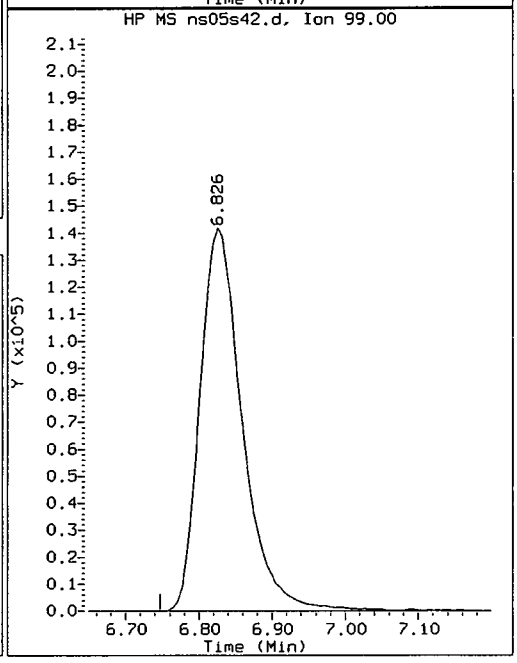
Reference Standard Spectrum for 1,1,1-Trichloroethane



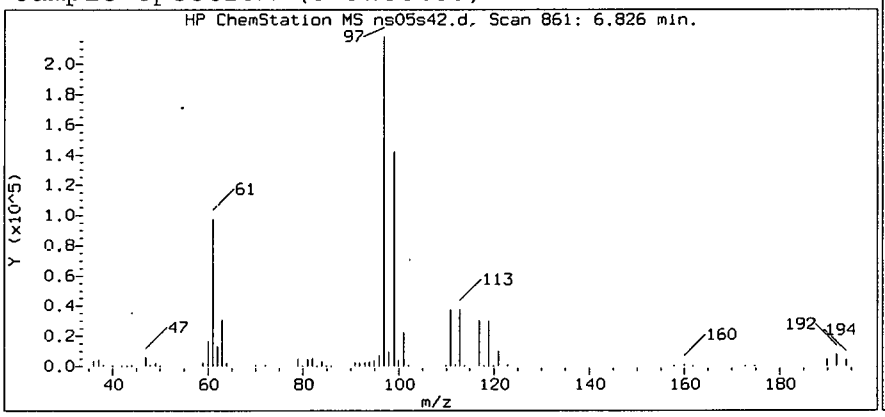


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 861
Retention Time (minutes): 6.826
Relative Retention Time :-0.00004
Quant Ion : 97.00
Area (flag) : 885876
On-Column Amount (ng) : 95.0724

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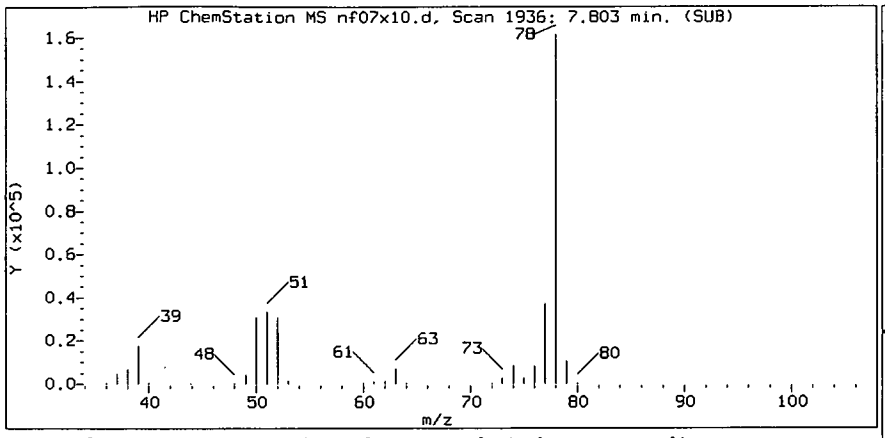
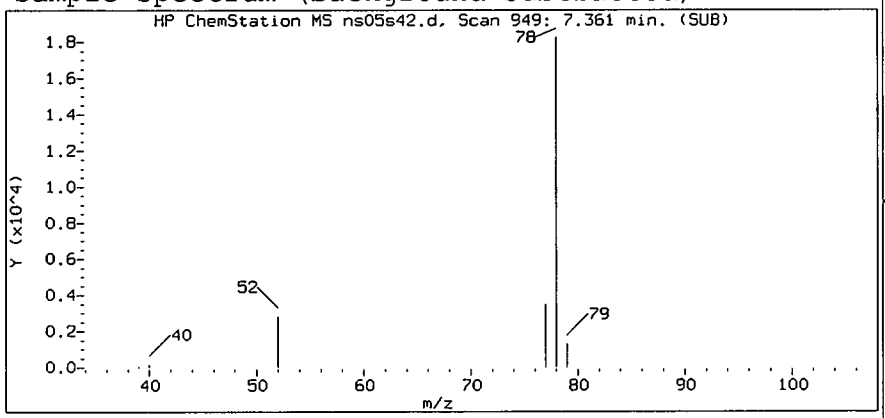
Target 3.5 esignature user ID: sag03174

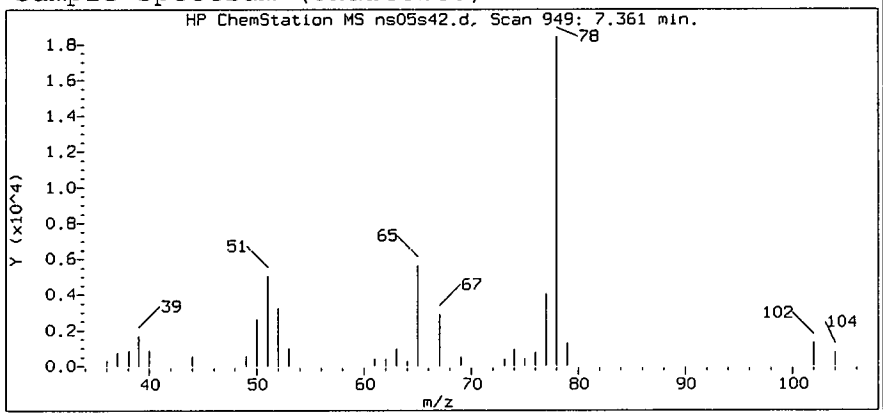
Reference Standard Spectrum for Benzene

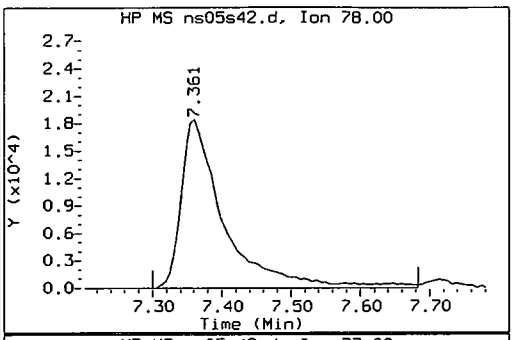


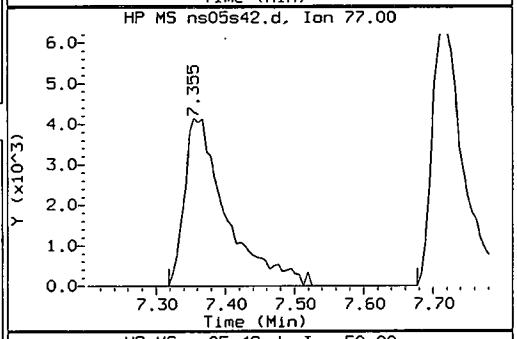
Sample Spectrum (Background Subtracted)

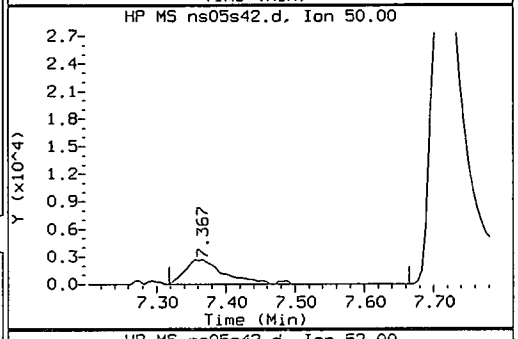


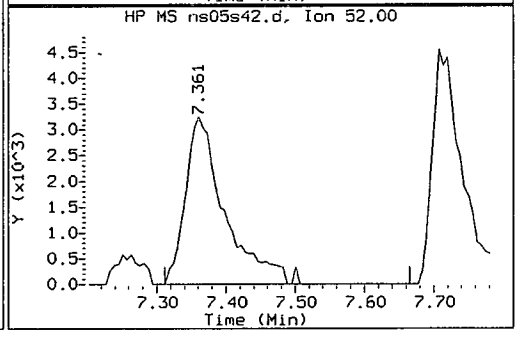
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

Compound Number : 65
Compound Name : Benzene
Scan Number : 949
Retention Time (minutes): 7.361
Relative Retention Time :-0.00396
Quant Ion : 78.00
Area (flag) : 79887
On-Column Amount (ng) : 2.8958

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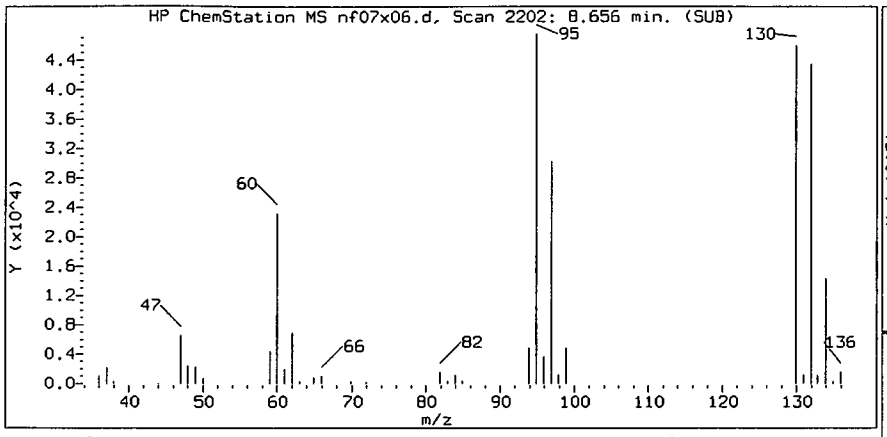
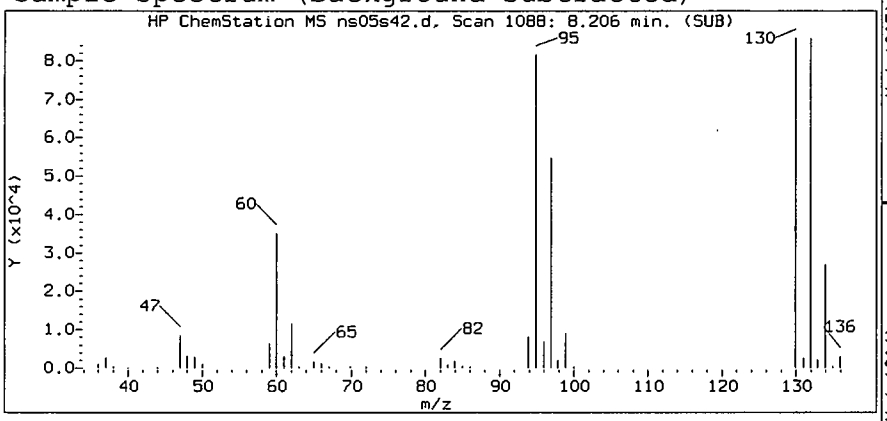
Target 3.5 esignature user ID: sag03174

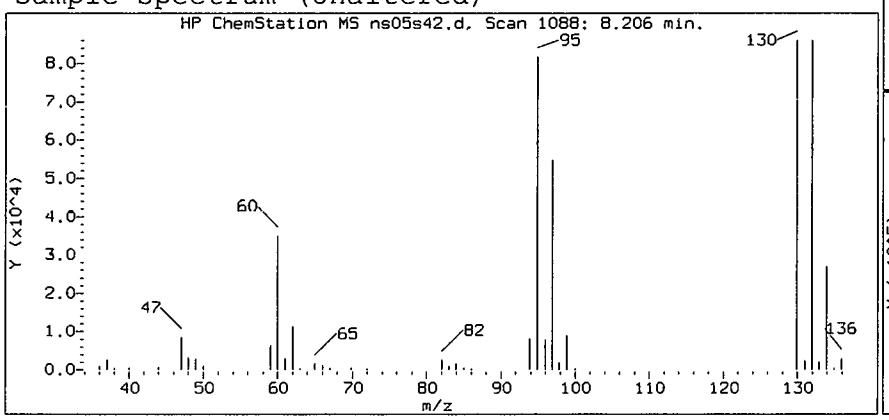
Reference Standard Spectrum for Trichloroethene

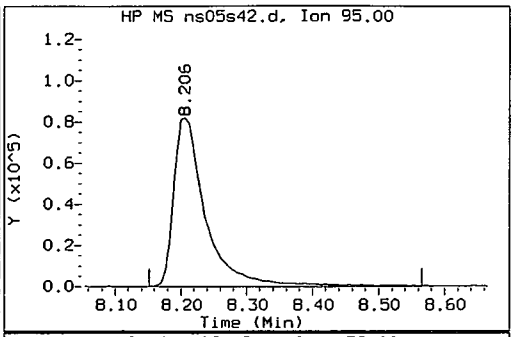


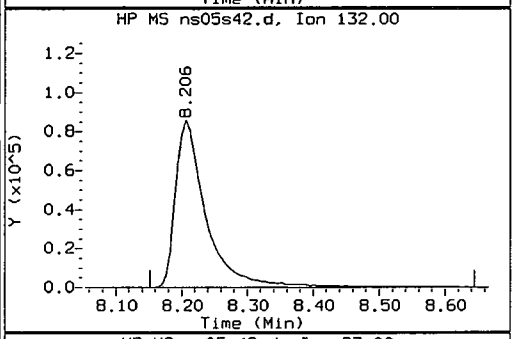
Sample Spectrum (Background Subtracted)

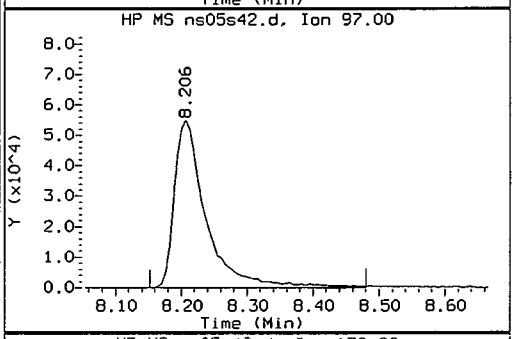


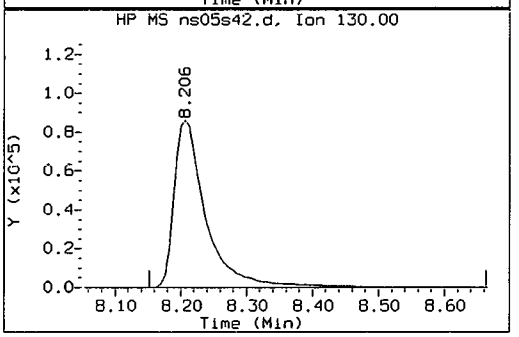
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

Compound Number	: 74
Compound Name	: Trichloroethene
Scan Number	: 1088
Retention Time (minutes)	: 8.206
Relative Retention Time	:-0.00076
Quant Ion	: 95.00
Area (flag)	: 280299
On-Column Amount (ng)	: 41.0721

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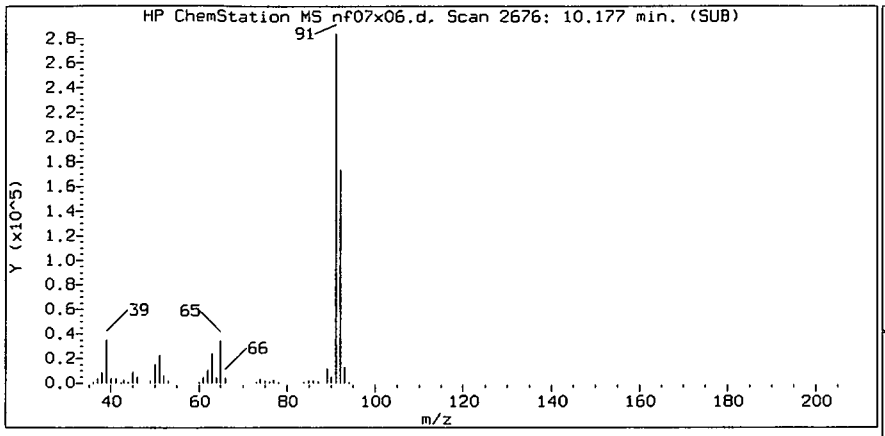
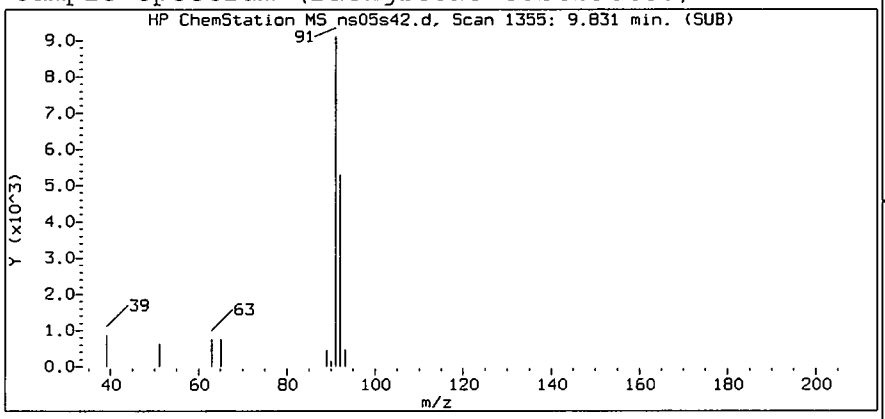
Target 3.5 esignature user ID: sag03174

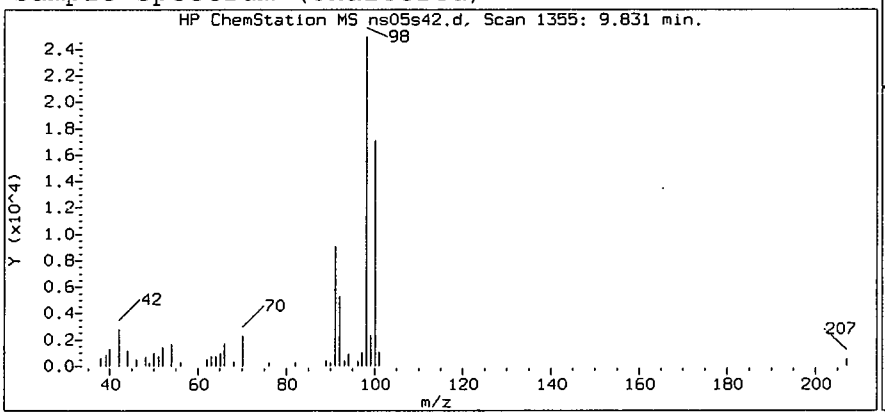
Reference Standard Spectrum for Toluene

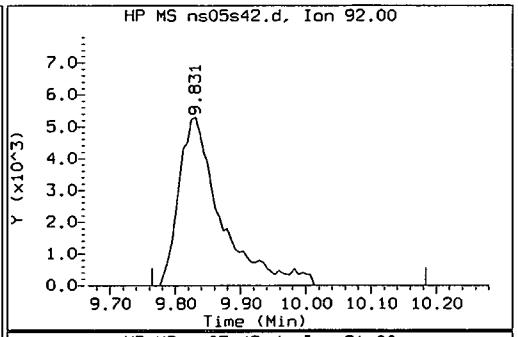


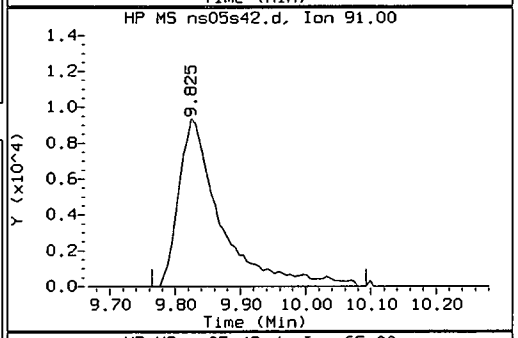
Sample Spectrum (Background Subtracted)

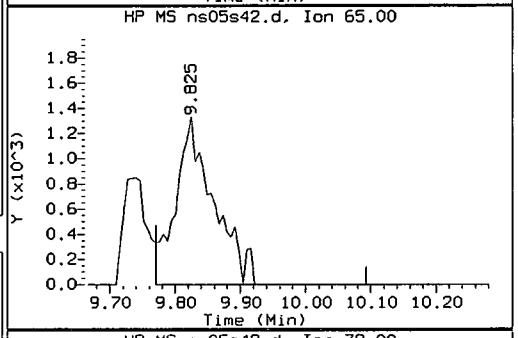


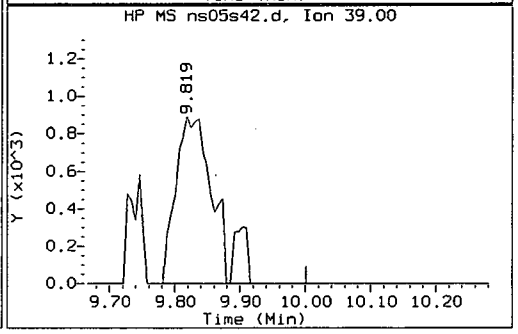
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s42.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 17:42 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:09 sag03174

Sample Name: PATVA Lab Sample ID: 6769193

Compound Number	: 88
Compound Name	: Toluene
Scan Number	: 1355
Retention Time (minutes)	: 9.831
Relative Retention Time	:-0.00180
Quant Ion	: 92.00
Area (flag)	: 23826
On-Column Amount (ng)	: 1.2823

Digitally signed by Sarah A. Guill on 09/05/2012 at 20:42.
Target 3.5 esignature user ID: sag03174

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

PAT-D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769194

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s43.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	120	
67-64-1	Acetone	10	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	J
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	8	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769194

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s43.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-86-1	Bromobenzene		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT-D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769194

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s43.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT-D

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6769194

Data file: /chem/HP07159.i/12sep05b.b/ns05s43.d Injection date and time: **05-SEP-2012 18:06**
Data file Sample Info. Line: PAT-D;6769194;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.259(-0.021)	439	65	306792 (-19)	250.00	
70) Fluorobenzene	7.720(-0.009)	1008	96	1357166 (-10)	50.00	
98) Chlorobenzene-d5	11.176(-0.009)	1576	117	975949 (-8)	50.00	
130) 1,4-Dichlorobenzene-d4	13.062(-0.034)	1886	152	551586 (-12)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.796(0.000)	113	321174	52.941	106%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.258(0.000)	102	84155	51.864	104%		77 - 113
86) Toluene-d8	(2)	9.734(0.000)	98	1292196	47.324	95%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.186(-0.002)	95	473309	47.677	95%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
4) Vinyl Chloride	(1)			Not Detected					1	5
5) Bromomethane	(1)			Not Detected					1	5
7) Chloroethane	(1)			Not Detected					1	5
8) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.571(0.000)	96	660683	119.670	119.67			0.8	5
19) Acetone	(1)	3.699(-0.010)	58	10871M	9.545	9.54		J	6	20
25) Methylene Chloride	(1)			Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)	5.281(-0.002)	63	57657	4.752	4.75		J	1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
42) 2-Butanone	(1)	6.315(-0.021)	43	41990A	7.812	7.81		J	3	10
44) 2,2-Dichloropropane	(1)			Not Detected					1	5
48) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)			Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)			Not Detected					1	5
59) Carbon Tetrachloride	(1)			Not Detected					1	5
65) Benzene	(1)			Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
76) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
81) Bromodichloromethane	(1)			Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
88) Toluene	(2)			Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32. Target 3.5 esignature user ID: sag03174

PAT-D

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769194

Data file: /chem/HP07159.i/12sep05b.b/ns05s43.d Injection date and time: **05-SEP-2012 18:06**
Data file Sample Info. Line: PAT-D;6769194;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

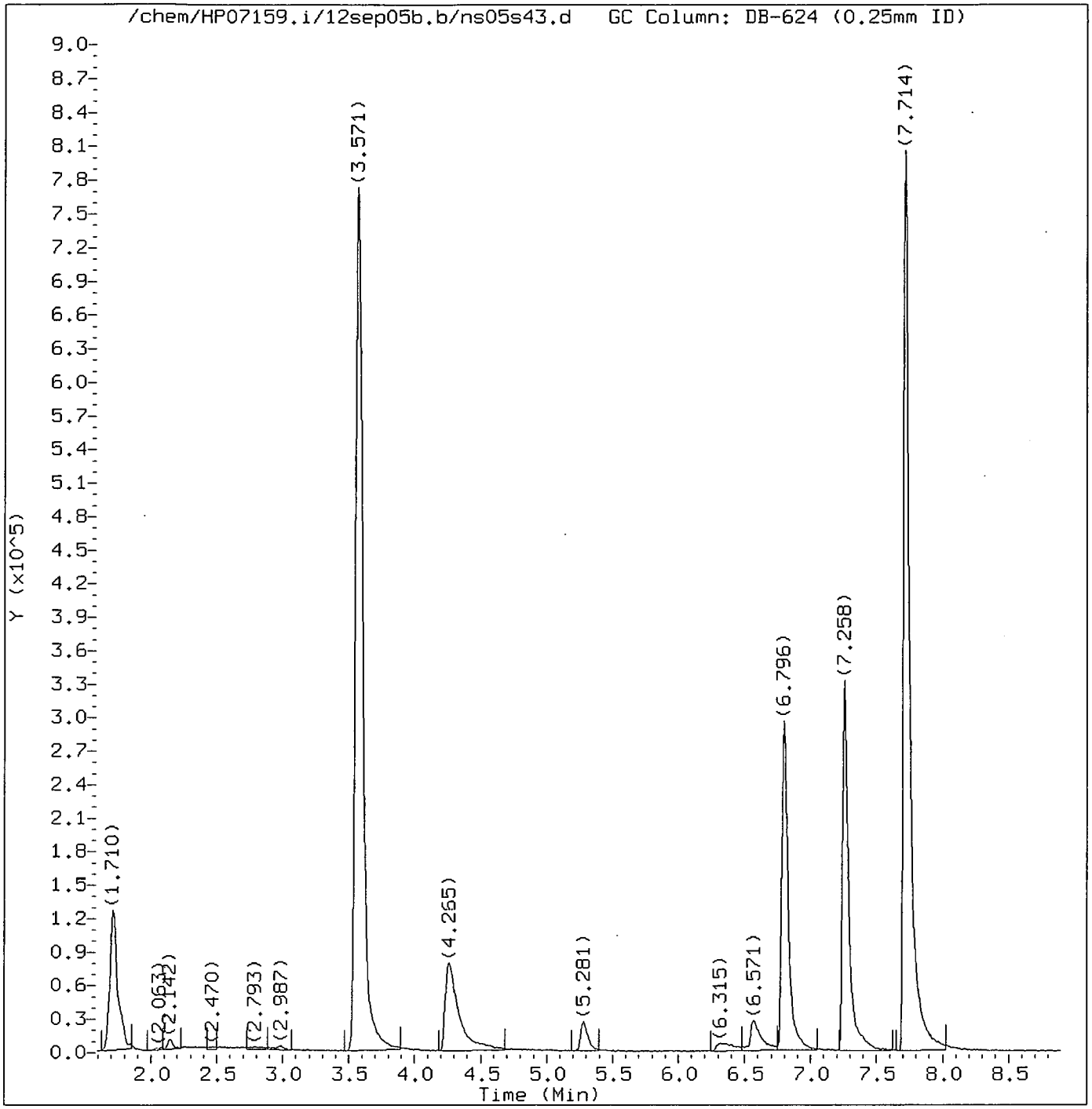
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

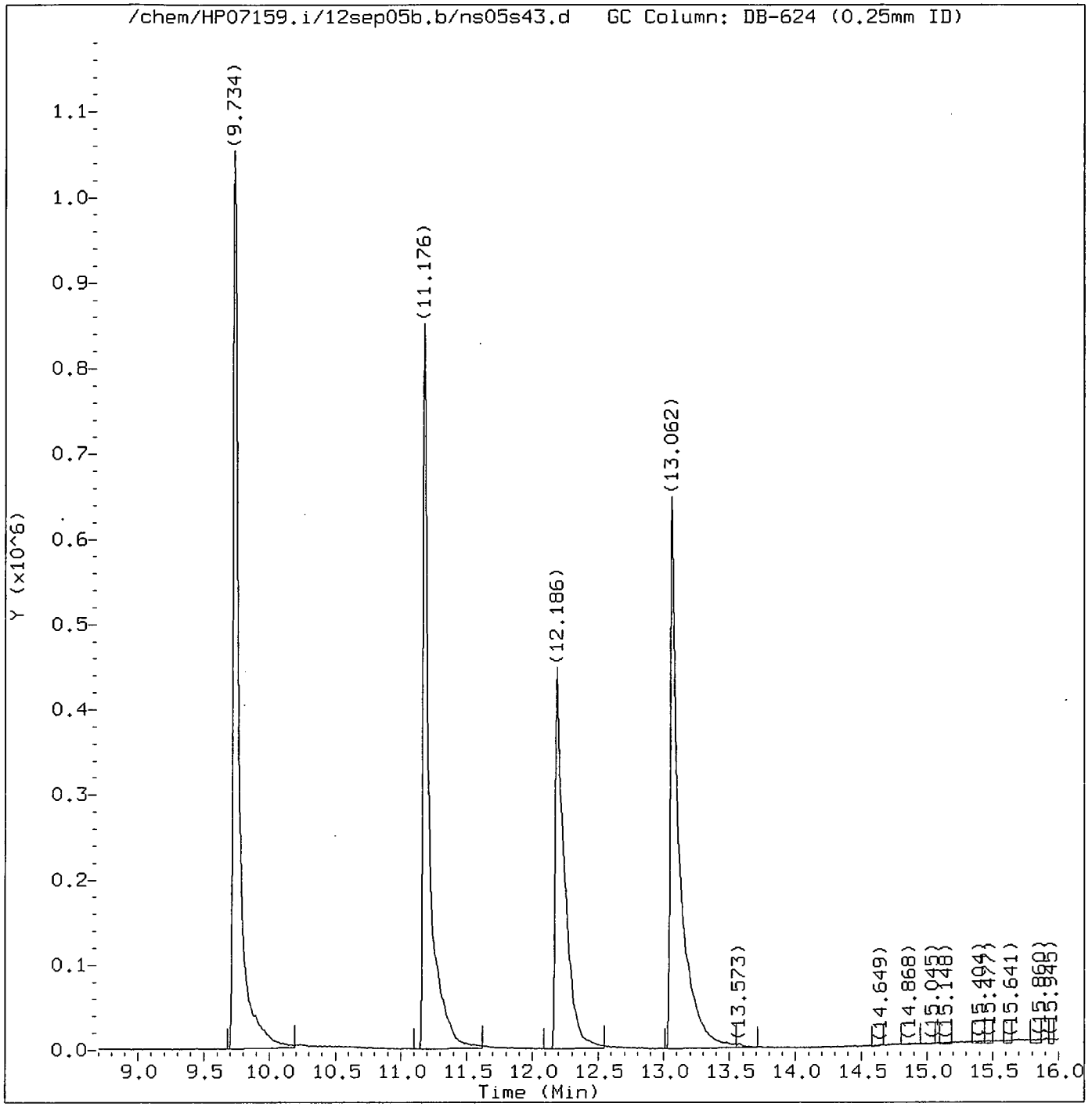
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:06 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT-D Lab Sample ID: 6769194

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:06 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT-D Lab Sample ID: 6769194

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:06 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

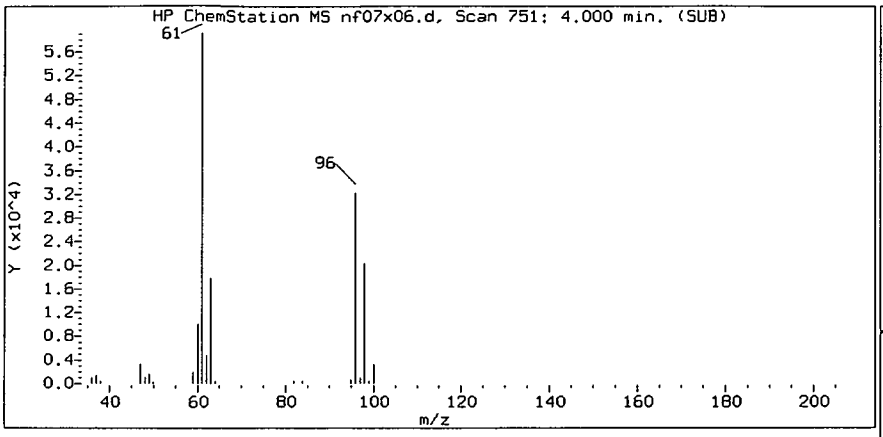
Sample Name: PAT-D Lab Sample ID: 6769194

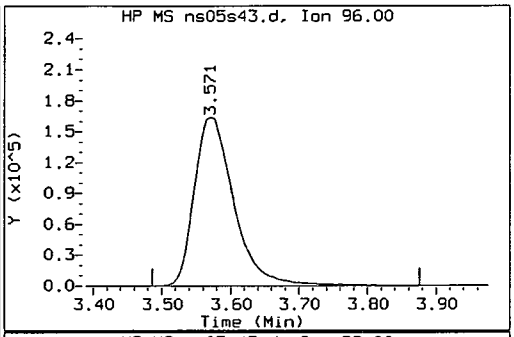
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.571	96	660683	119.670
19) Acetone	(1)	3.699	58	10871M	9.545
26)*t-Butyl Alcohol-d10	(4)	4.259	65	306792	250.000
36) 1,1-Dichloroethane	(1)	5.281	63	57657	4.752
42) 2-Butanone	(1)	6.315	43	41990A	7.812
51)$Dibromofluoromethane	(1)	6.796	113	321174	52.941
62)$1,2-Dichloroethane-d4	(1)	7.258	102	84155	51.864
70)*Fluorobenzene	(1)	7.720	96	1357166	50.000
86)$Toluene-d8	(2)	9.734	98	1292196	47.324
98)*Chlorobenzene-d5	(2)	11.176	117	975949	50.000
114)$4-Bromofluorobenzene	(2)	12.186	95	473309	47.677
130)*1,4-Dichlorobenzene-d4	(3)	13.062	152	551586	50.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

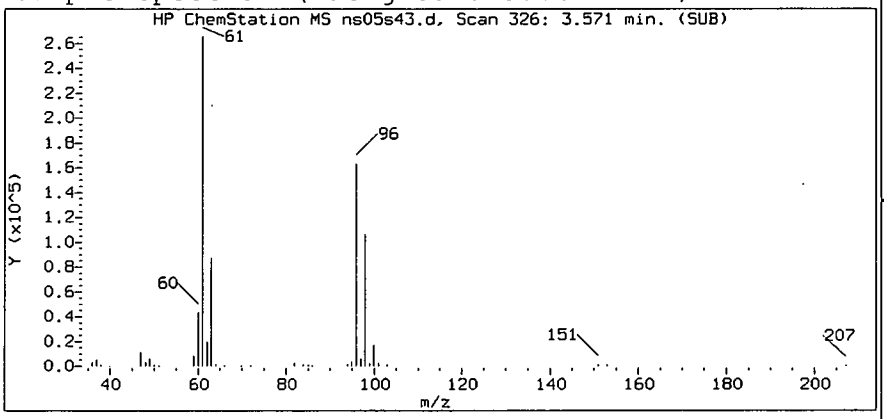
Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

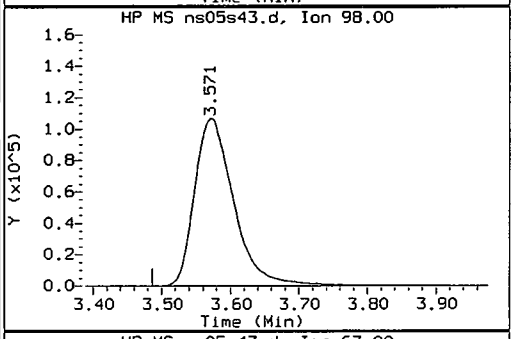
Reference Standard Spectrum for 1,1-Dichloroethene

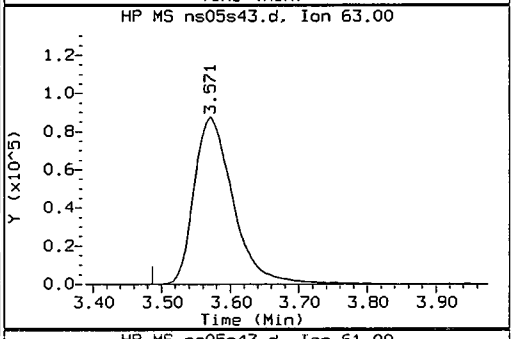




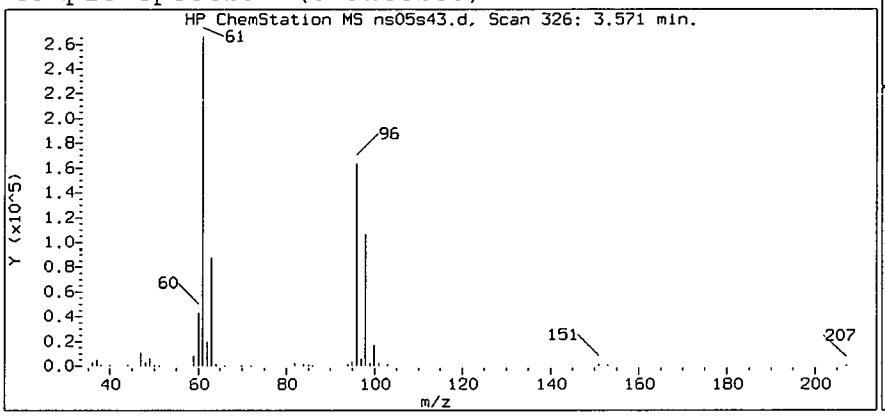
Sample Spectrum (Background Subtracted)

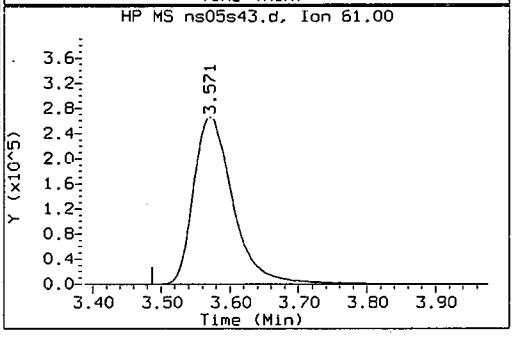






Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:06 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT-D Lab Sample ID: 6769194

Compound Number	: 16
Compound Name	: 1,1-Dichloroethene
Scan Number	: 326
Retention Time (minutes)	: 3.571
Relative Retention Time	: 0.00093
Quant Ion	: 96.00
Area (flag)	: 660683
On-Column Amount (ng)	: 119.6697

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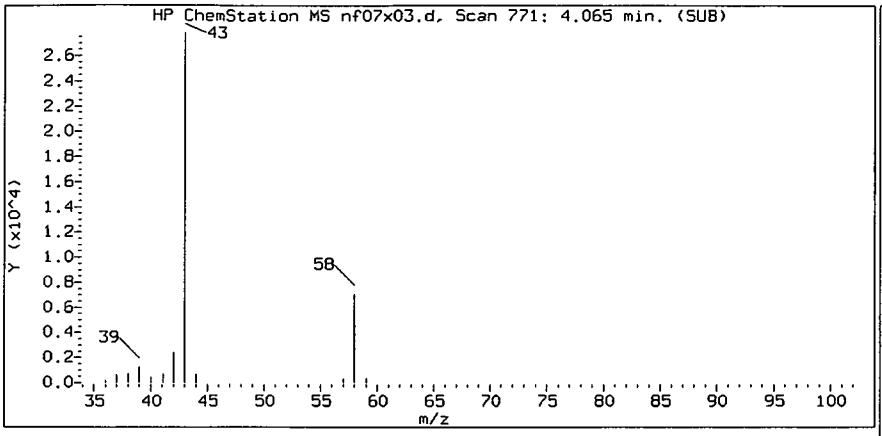
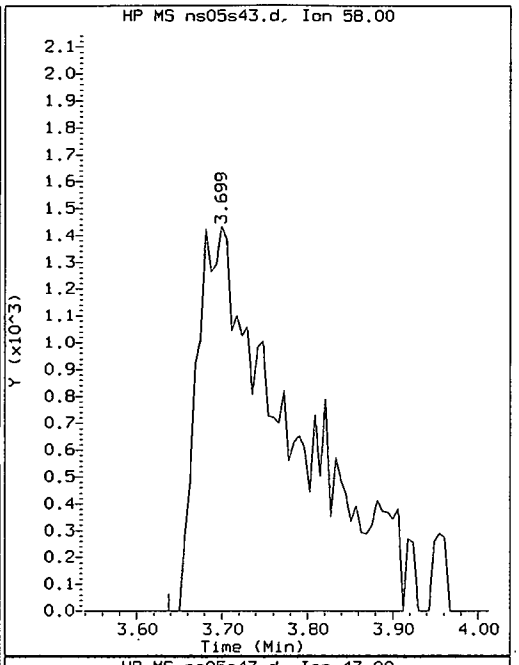
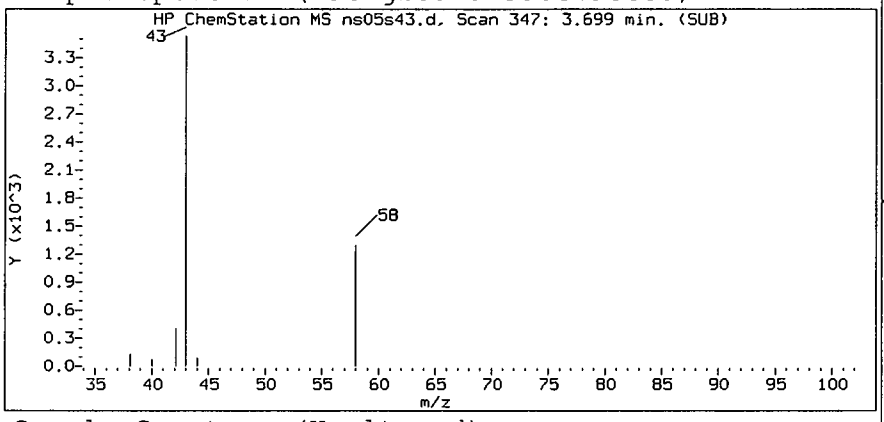
Target 3.5 esignature user ID: sag03174

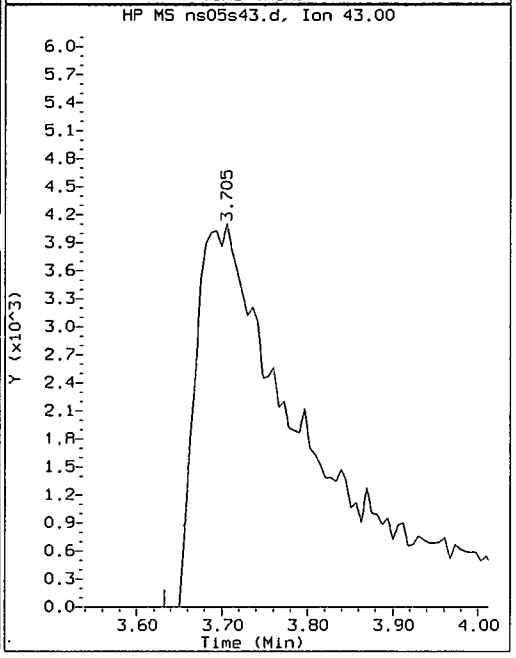
Reference Standard Spectrum for Acetone



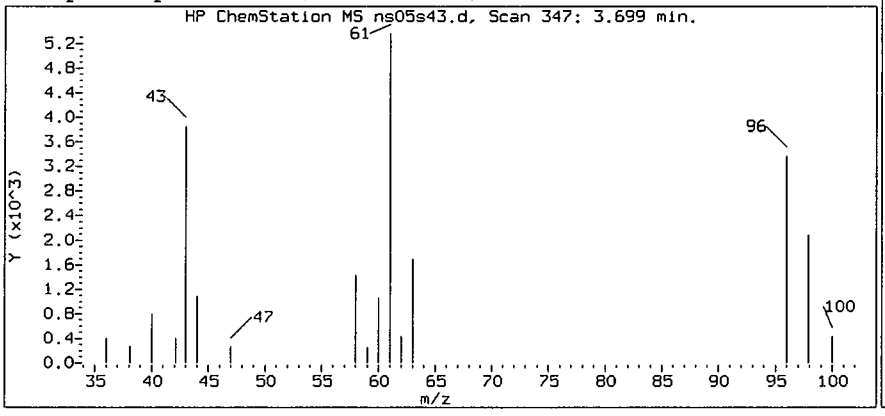


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d
Injection date and time: 05-SEP-2012 18:06

Instrument ID: HP07159.i
Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m
Calibration date and time: 05-SEP-2012 13:23

Sublist used: 8732

Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

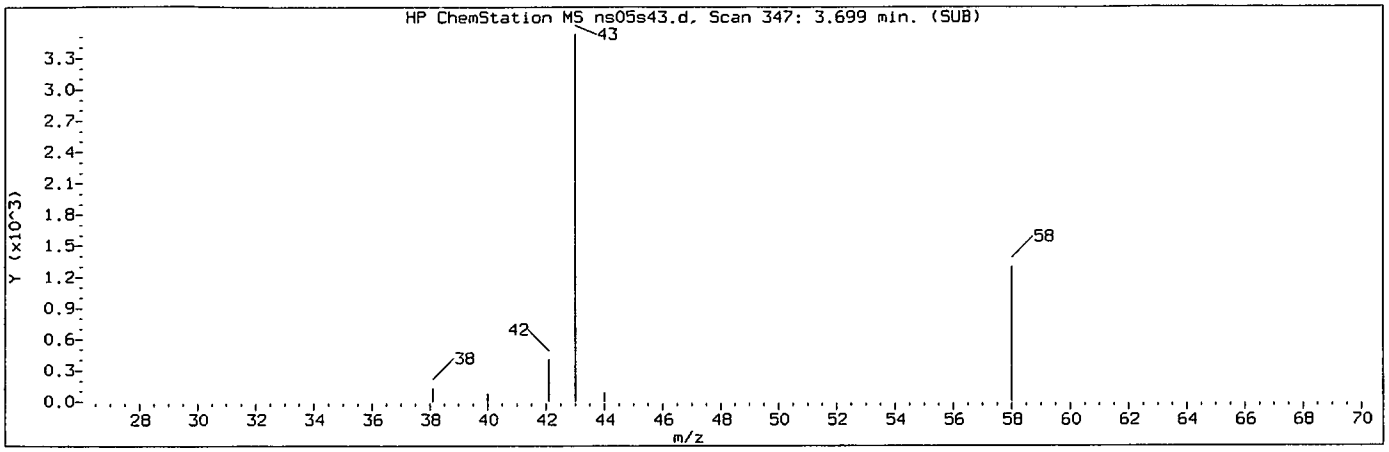
Sample Name: PAT-D

Lab Sample ID: 6769194

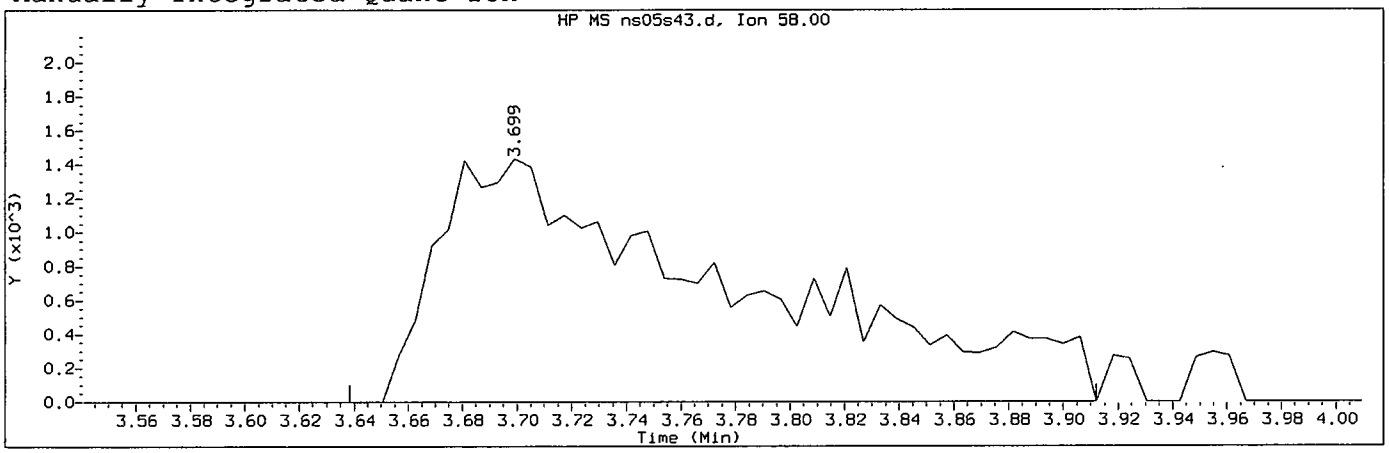
Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 347
Retention Time (minutes)	: 3.699
Relative Retention Time	:-0.01010
Quant Ion	: 58.00
Area (flag)	: 10871M
On-Column Amount (ng)	: 9.5449

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:06 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT-D Lab Sample ID: 6769194

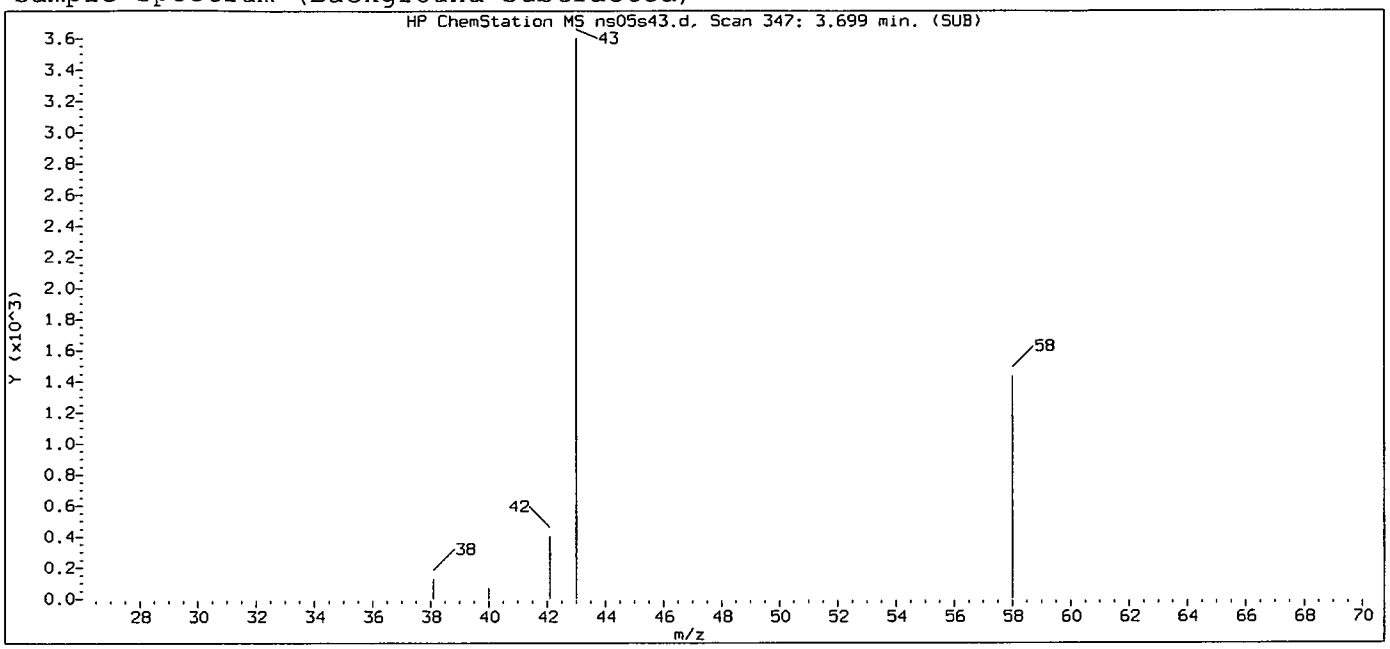
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 347		
Retention Time (minutes)	: 3.699		
Quant Ion	: 58.00		
Area (flag)	: 10871M		
On-Column Amount (ng)	: 9.5449		
Integration start scan	: 336	Integration stop scan:	381
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

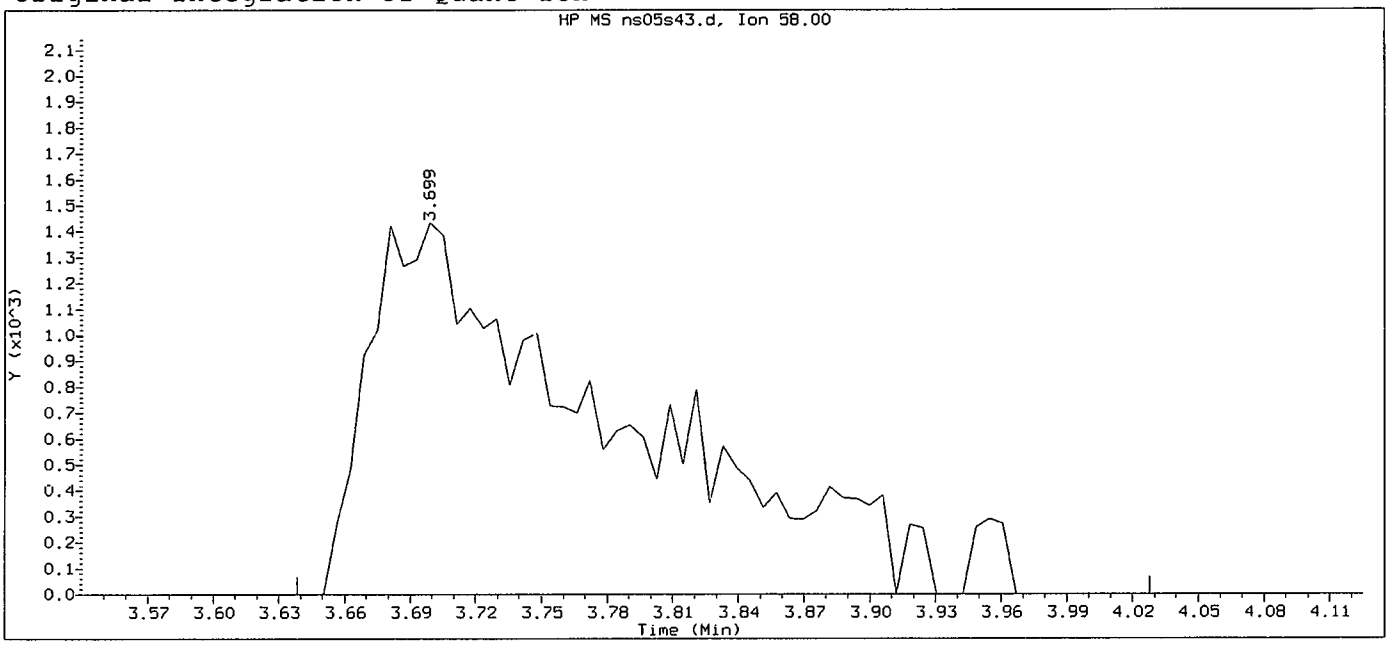
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:06 Analyst ID: ERS02237

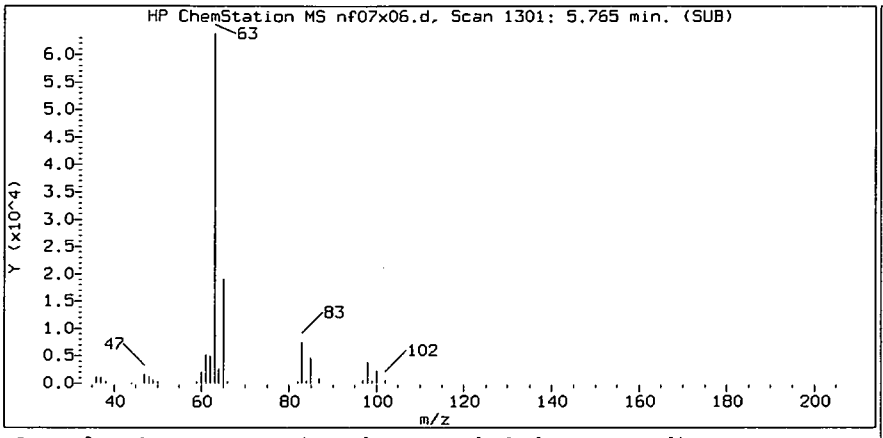
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 18:26 Automation

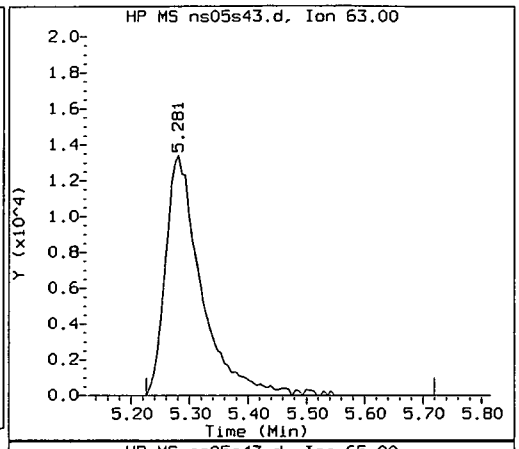
Sample Name: PAT-D Lab Sample ID: 6769194

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 347		
Retention Time (minutes)	: 3.699		
Quant Ion	: 58.00		
Area	: 11364		
On-column Amount (ng)	: 9.9778		
Integration start scan	: 336	Integration stop scan:	400
Y at integration start	: 0	Y at integration end:	0

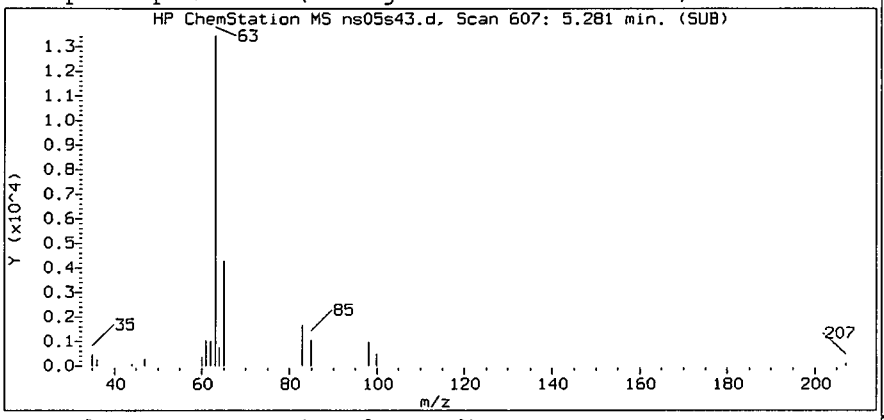
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

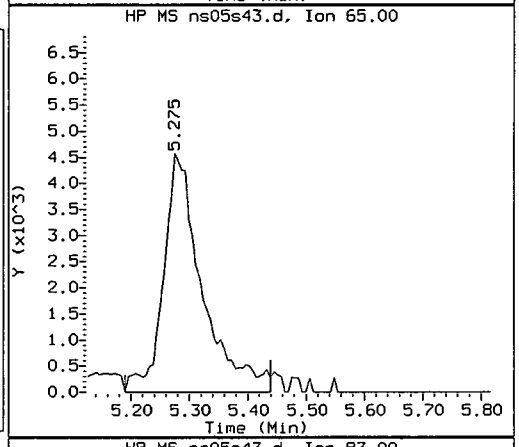
Reference Standard Spectrum for 1,1-Dichloroethane



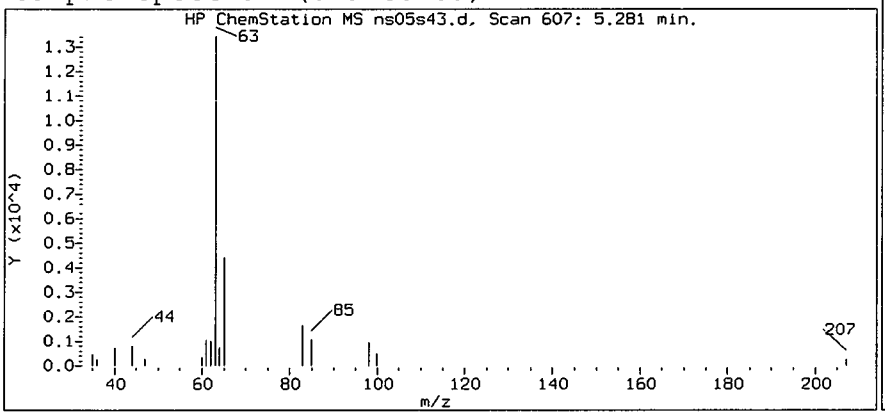


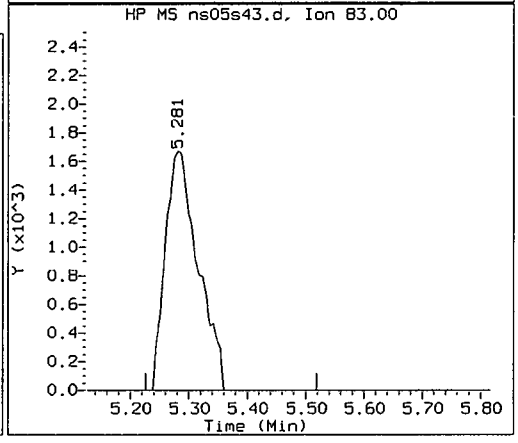
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:06 Analyst ID: ERS02237

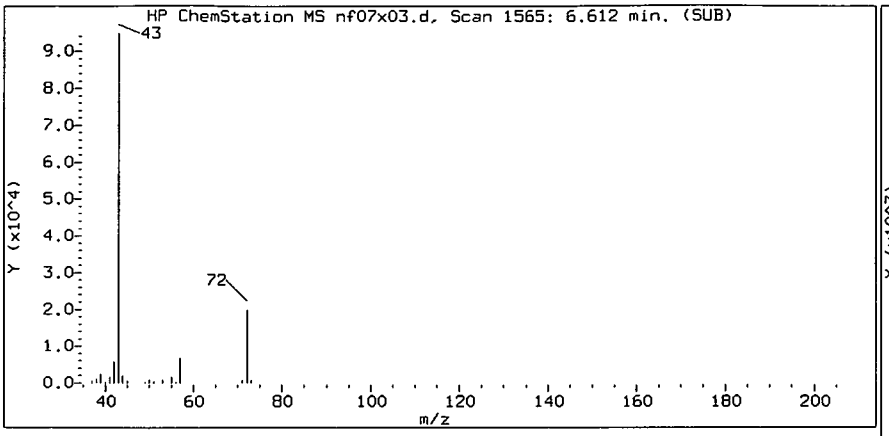
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

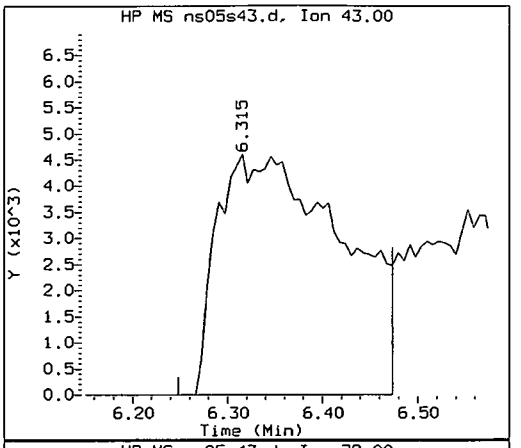
Sample Name: PAT-D Lab Sample ID: 6769194

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 607
Retention Time (minutes): 5.281
Relative Retention Time :-0.00275
Quant Ion : 63.00
Area (flag) : 57657
On-Column Amount (ng) : 4.7519

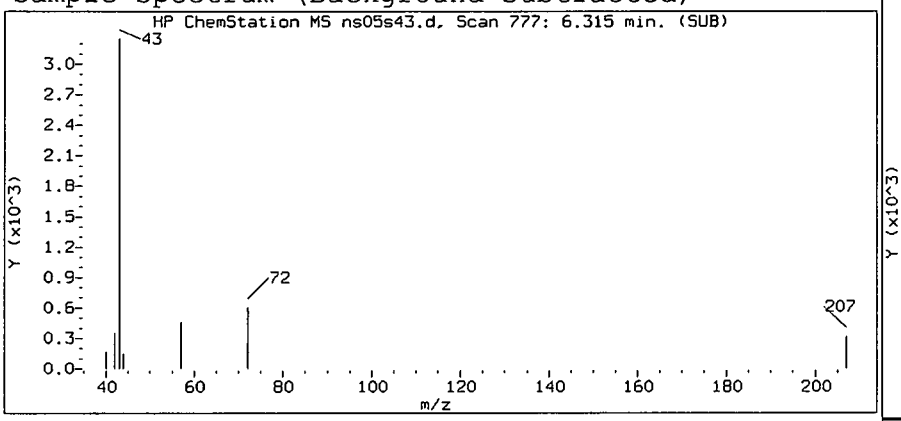
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

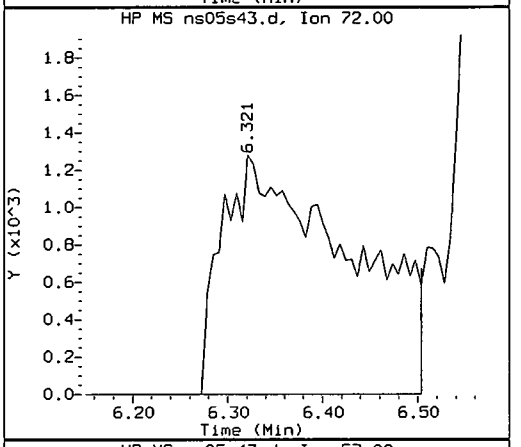
Reference Standard Spectrum for 2-Butanone



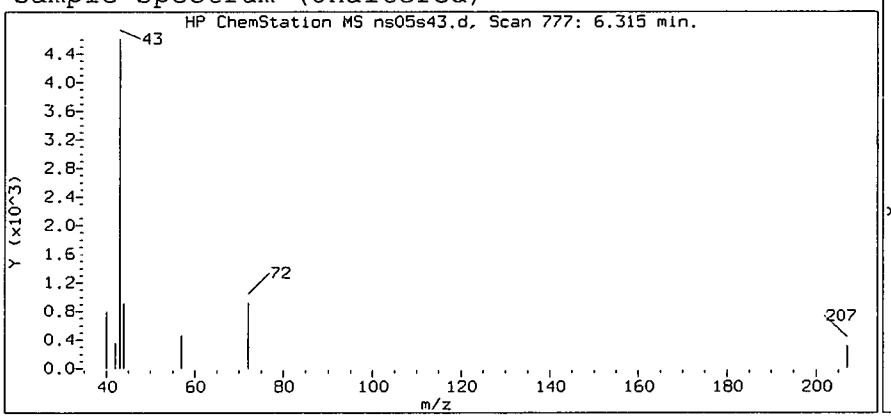


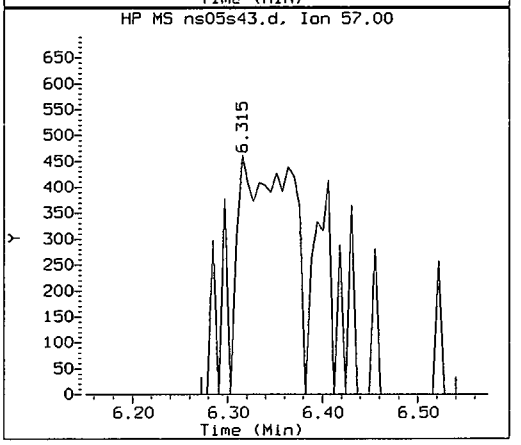
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:06 Analyst ID: ERS02237

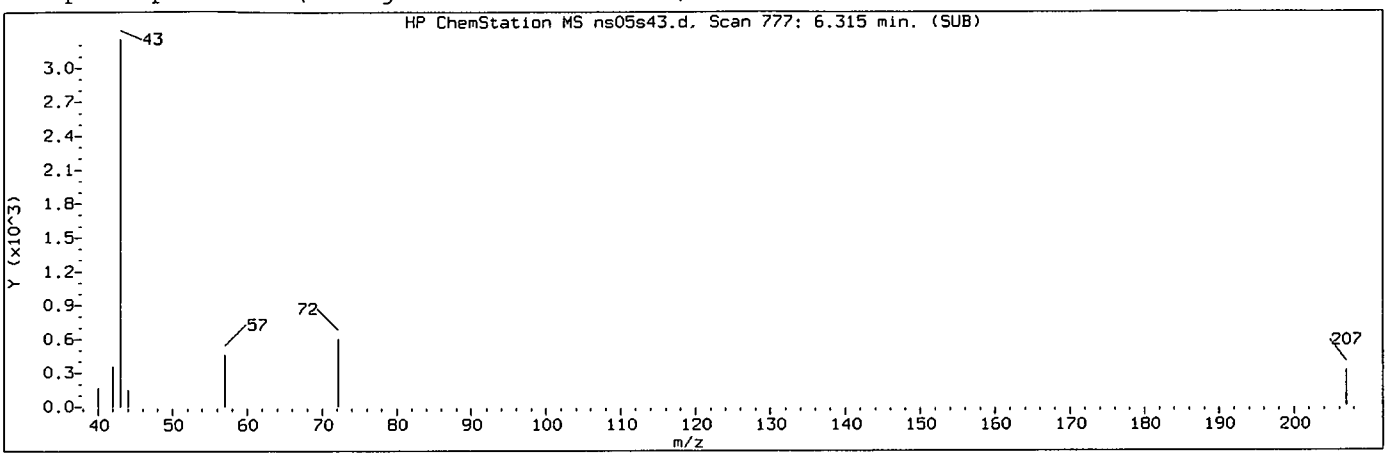
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT-D Lab Sample ID: 6769194

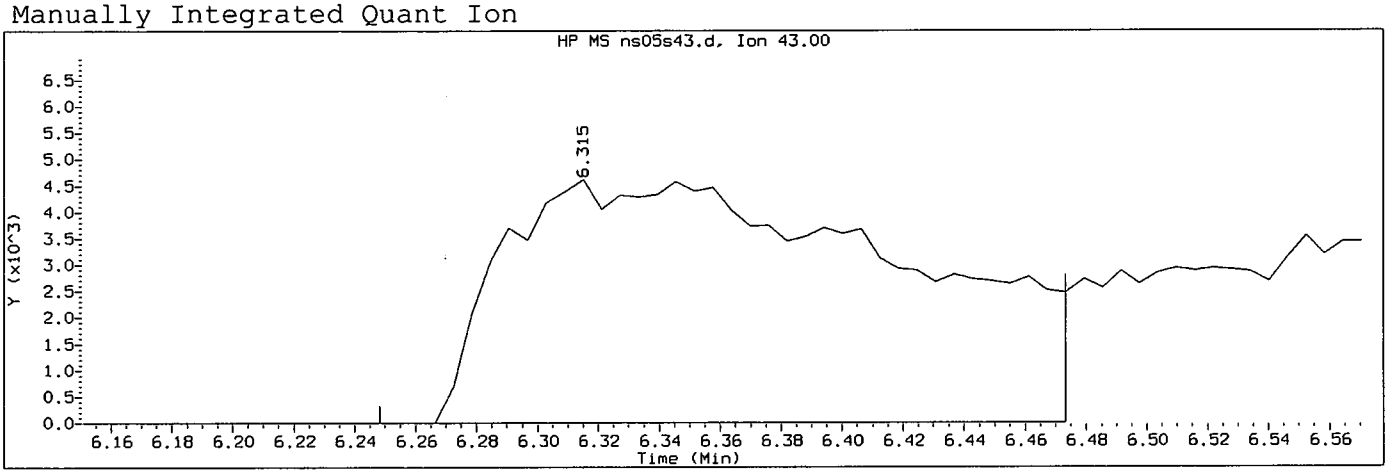
Compound Number : 42
Compound Name : 2-Butanone
Scan Number : 777
Retention Time (minutes): 6.315
Relative Retention Time :-0.02152
Quant Ion : 43.00
Area (flag) : 41990A
On-Column Amount (ng) : 7.8122

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:06 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT-D Lab Sample ID: 6769194

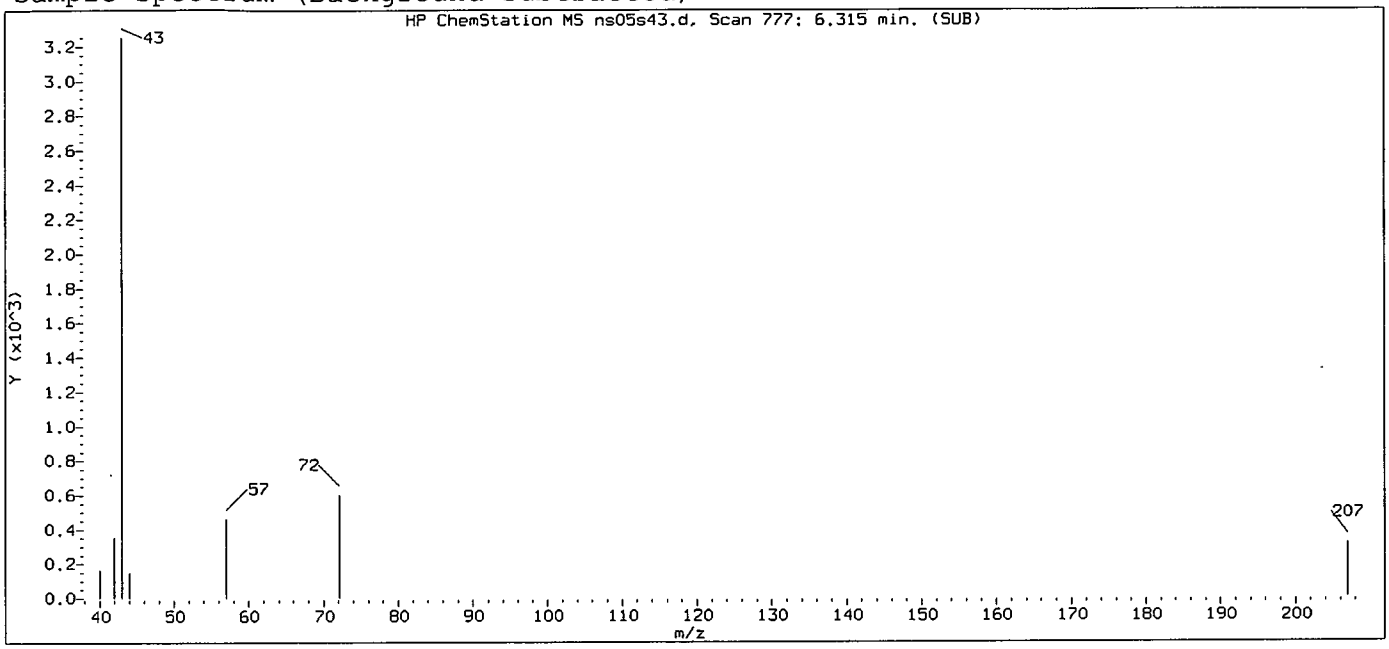
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 777		
Retention Time (minutes)	: 6.315		
Quant Ion	: 43.00		
Area (flag)	: 41990A		
On-Column Amount (ng)	: 7.8122		
Integration start scan	: 765	Integration stop scan:	802
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

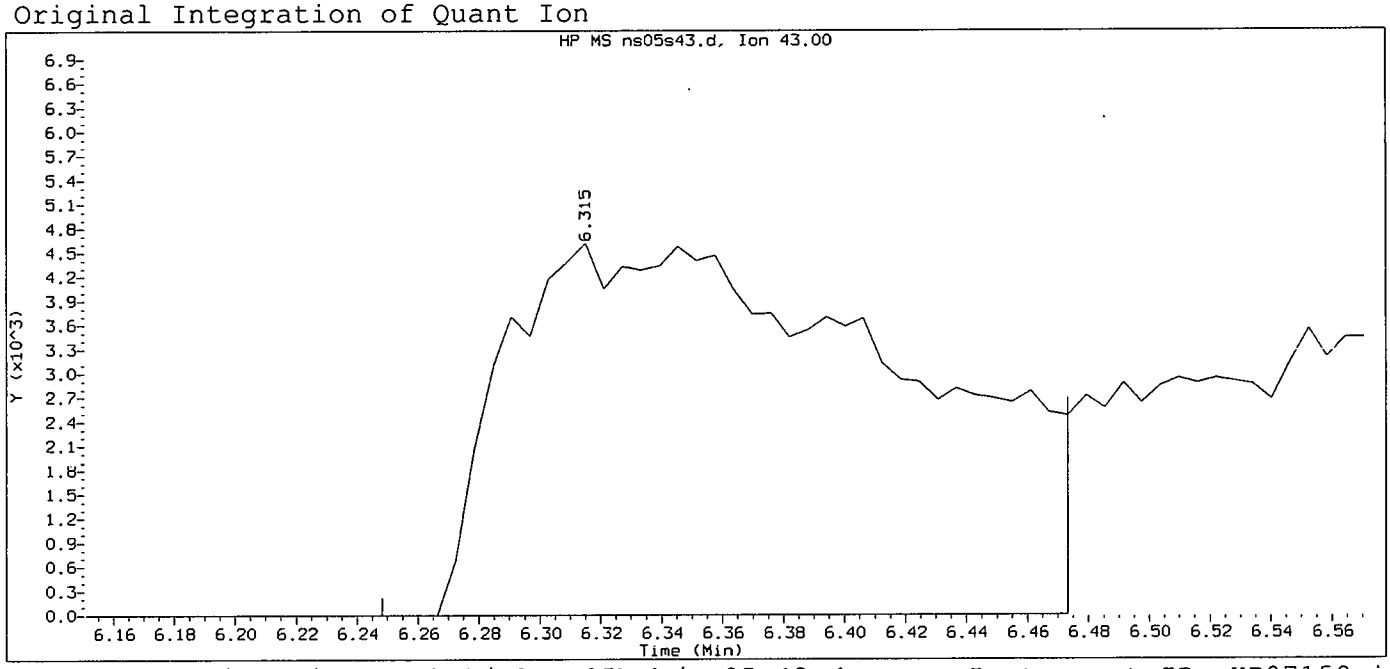
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s43.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:06 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 18:26 Automation

Sample Name: PAT-D Lab Sample ID: 6769194

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 777		
Retention Time (minutes)	: 6.315		
Quant Ion	: 43.00		
Area	: 41990		
On-column Amount (ng)	: 7.8124		
Integration start scan	: 765	Integration stop scan:	802
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

PAT16

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769195

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s44.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	9	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	7	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT16

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769195

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s44.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-86-1	Bromobenzene		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT16

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769195

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s44.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT16

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769195

Data file: /chem/HP07159.i/12sep05b.b/ns05s44.d
Data file Sample Info. Line: PAT16;6769195;1;0;;PTL09;PLM;;ns05b05;
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Injection date and time: **05-SEP-2012 18:29**
Instrument ID: **HP07159.i** Batch: **N122492AA**

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.259(-0.021)	439	65	313460 (-17)	250.00	
70) Fluorobenzene	7.720(-0.009)	1008	96	1343678 (-11)	50.00	
98) Chlorobenzene-d5	11.181(-0.015)	1577	117	970756 (-9)	50.00	
130) 1,4-Dichlorobenzene-d4	13.061(-0.033)	1886	152	547559 (-13)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.795(0.000)	113	317395	52.844	106%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.258(0.000)	102	81772	50.901	102%		77 - 113
86) Toluene-d8	(2)	9.734(0.000)	98	1278708	47.080	94%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.185(-0.001)	95	459875	46.571	93%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
4) Vinyl Chloride	(1)			Not Detected					1	5
5) Bromomethane	(1)			Not Detected					1	5
7) Chloroethane	(1)			Not Detected					1	5
8) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.8	5
19) Acetone	(1)	3.699(-0.010)	58	9966M	8.838	8.84		J	6	20
25) Methylene Chloride	(1)			Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
42) 2-Butanone	(1)	6.339(-0.024)	43	35269A	6.628	6.63		J	3	10
44) 2,2-Dichloropropane	(1)			Not Detected					1	5
48) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)			Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)			Not Detected					1	5
59) Carbon Tetrachloride	(1)			Not Detected					1	5
65) Benzene	(1)			Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
76) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
81) Bromodichloromethane	(1)			Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
88) Toluene	(2)			Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32. Target 3.5 esignature user ID: sag03174

PAT16 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 6769195

Data file: /chem/HP07159.i/12sep05b.b/ns05s44.d Injection date and time: **05-SEP-2012 18:29**
Data file Sample Info. Line: PAT16;6769195;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

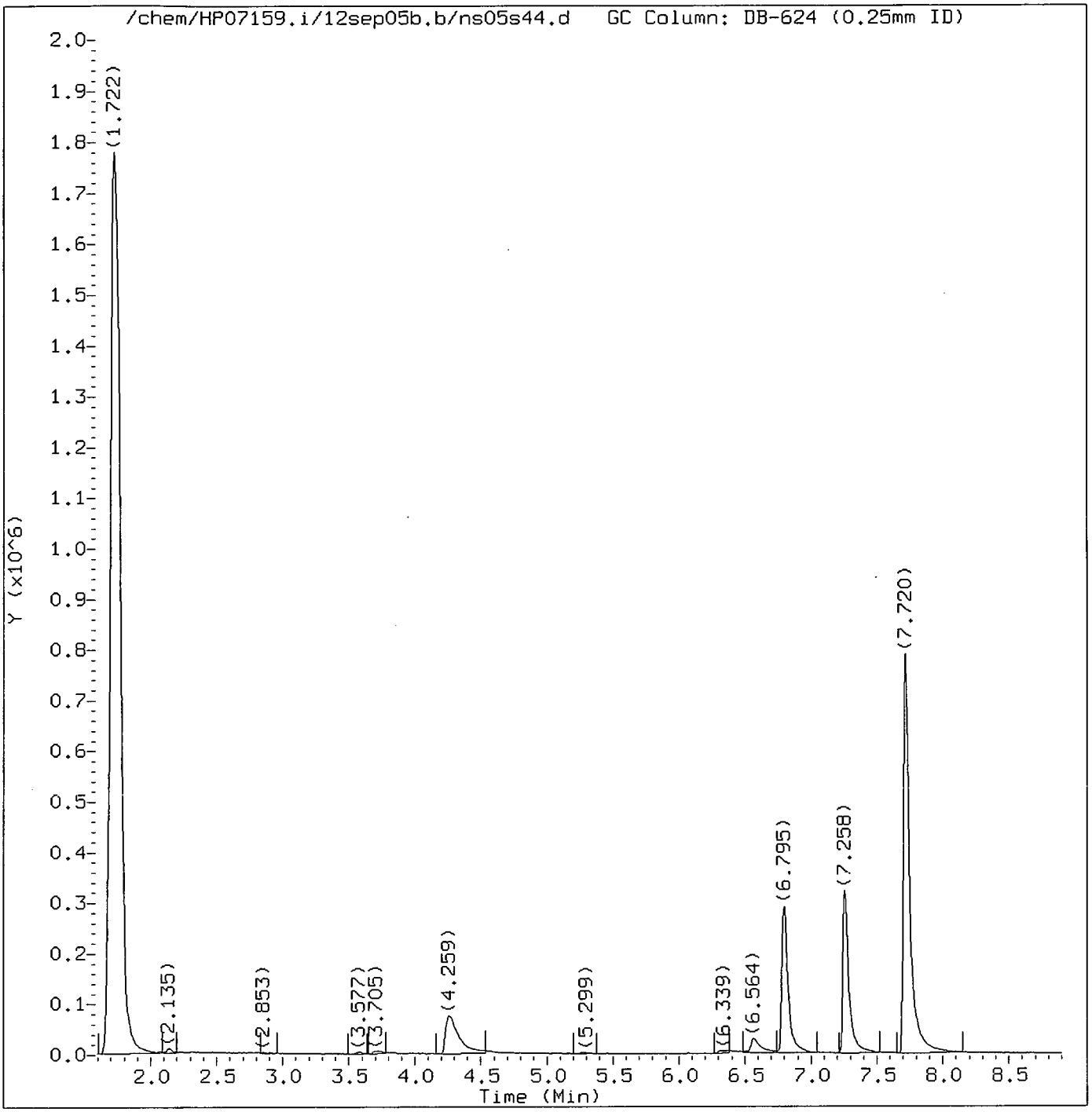
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)			Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)			Not Detected					1	5
96) Dibromochloromethane	(2)			Not Detected					1	5
97) 1,2-Dibromoethane	(2)			Not Detected					1	5
100) Chlorobenzene	(2)			Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)			Not Detected					1	5
102) Ethylbenzene	(2)			Not Detected					0.8	5
103) m+p-Xylene	(2)			Not Detected					0.8	5
106) o-Xylene	(2)			Not Detected					0.8	5
109) Styrene	(2)			Not Detected					1	5
110) Bromoform	(2)			Not Detected					1	5
111) Isopropylbenzene	(2)			Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					1	5
117) Bromobenzene	(3)			Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)			Not Detected					1	5
120) n-Propylbenzene	(3)			Not Detected					1	5
121) 2-Chlorotoluene	(3)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)			Not Detected					1	5
123) 4-Chlorotoluene	(3)			Not Detected					1	5
124) tert-Butylbenzene	(3)			Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)			Not Detected					1	5
127) sec-Butylbenzene	(3)			Not Detected					1	5
128) p-Isopropyltoluene	(3)			Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)			Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)			Not Detected					1	5
136) n-Butylbenzene	(3)			Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)			Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)			Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)			Not Detected					1	5
141) Hexachlorobutadiene	(3)			Not Detected					2	5
142) Naphthalene	(3)			Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)			Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

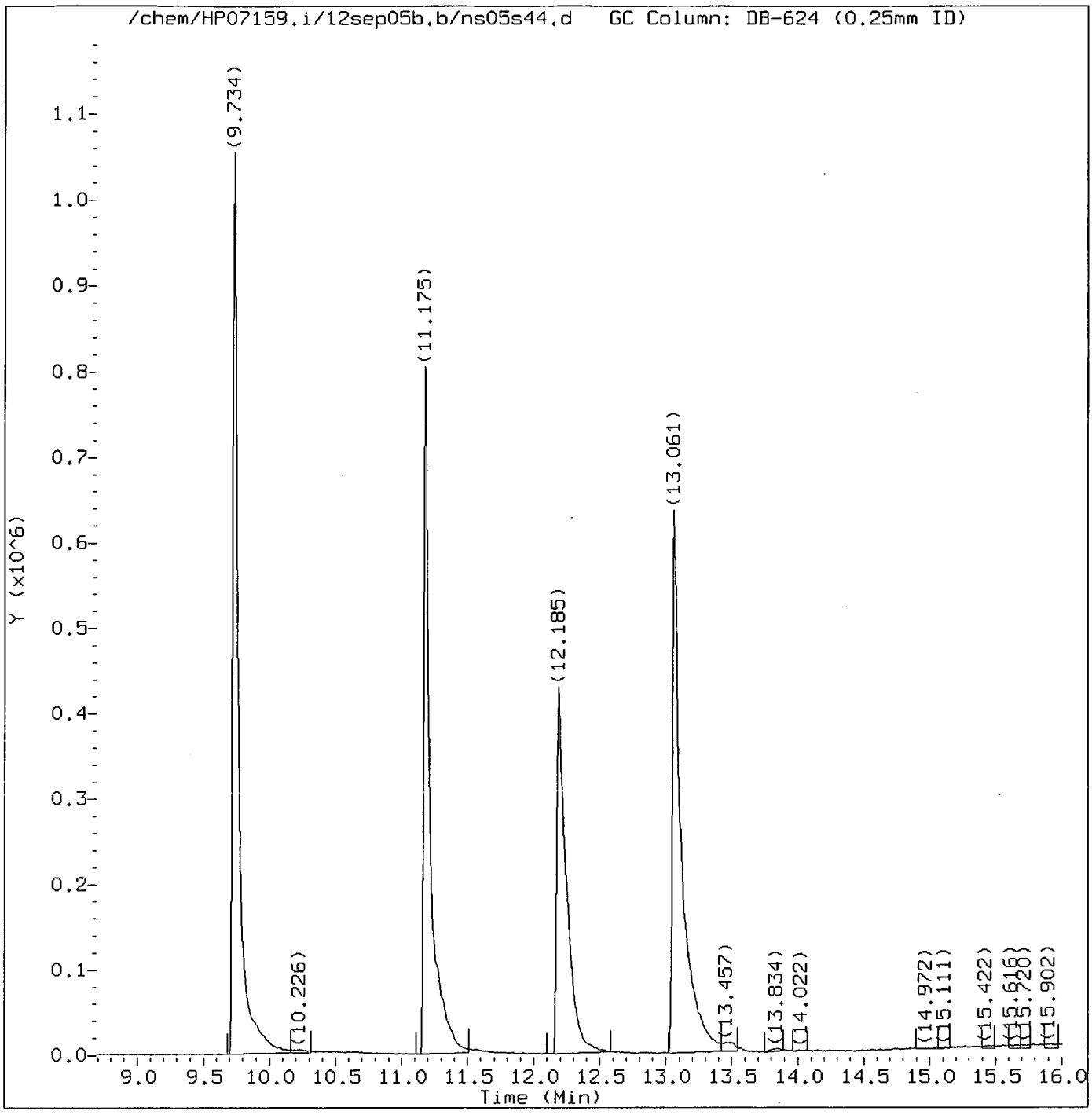
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s44.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:29 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT16 Lab Sample ID: 6769195

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s44.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:29 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT16 Lab Sample ID: 6769195

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s44.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:29 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

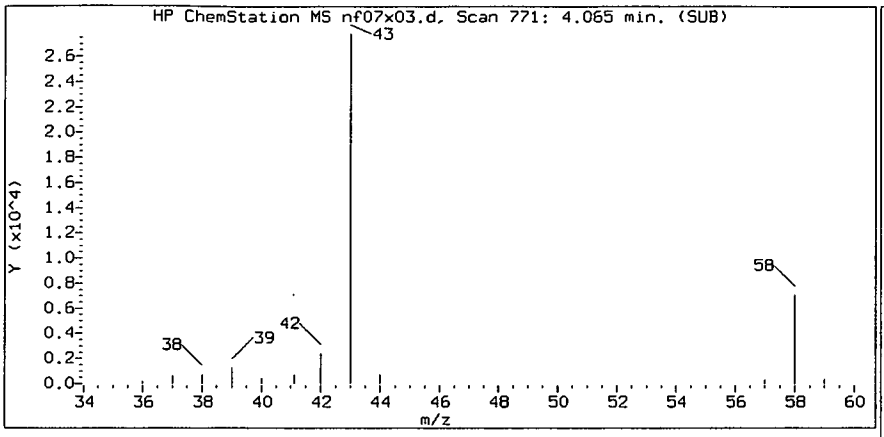
Sample Name: PAT16 Lab Sample ID: 6769195

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
19) Acetone	(1)	3.699	58	9966M	8.838
26)*t-Butyl Alcohol-d10	(4)	4.259	65	313460	250.000
42) 2-Butanone	(1)	6.339	43	35269A	6.628
51)$Dibromofluoromethane	(1)	6.795	113	317395	52.844
62)$1,2-Dichloroethane-d4	(1)	7.258	102	81772	50.901
70)*Fluorobenzene	(1)	7.720	96	1343678	50.000
86)$Toluene-d8	(2)	9.734	98	1278708	47.080
98)*Chlorobenzene-d5	(2)	11.181	117	970756	50.000
114)$4-Bromofluorobenzene	(2)	12.185	95	459875	46.571
130)*1,4-Dichlorobenzene-d4	(3)	13.061	152	547559	50.000

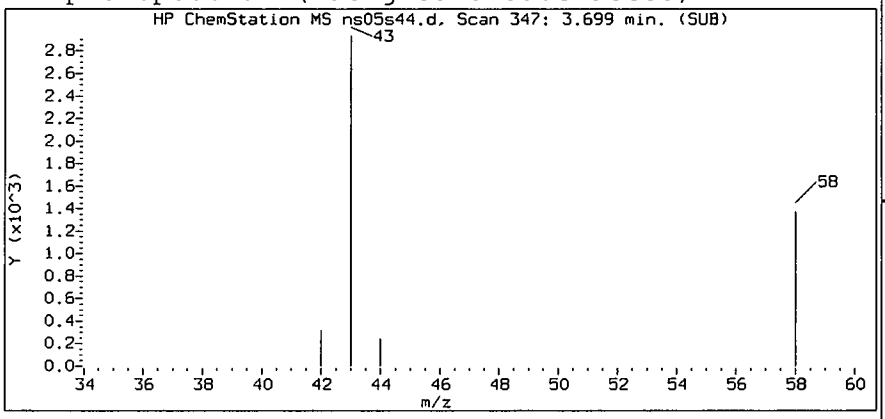
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

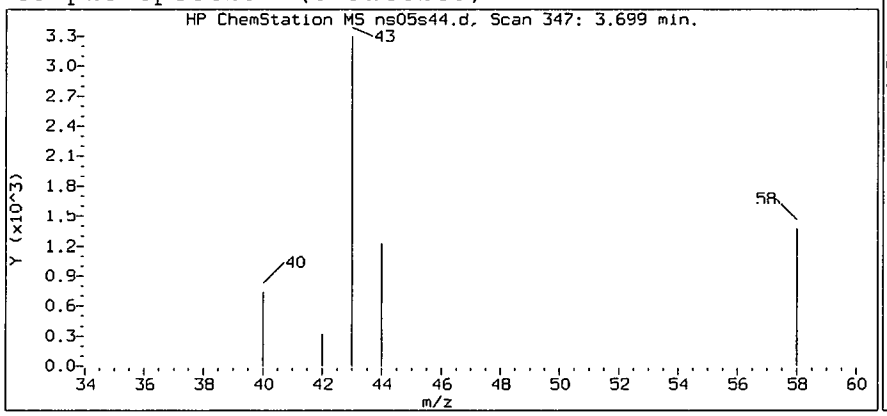
Reference Standard Spectrum for Acetone

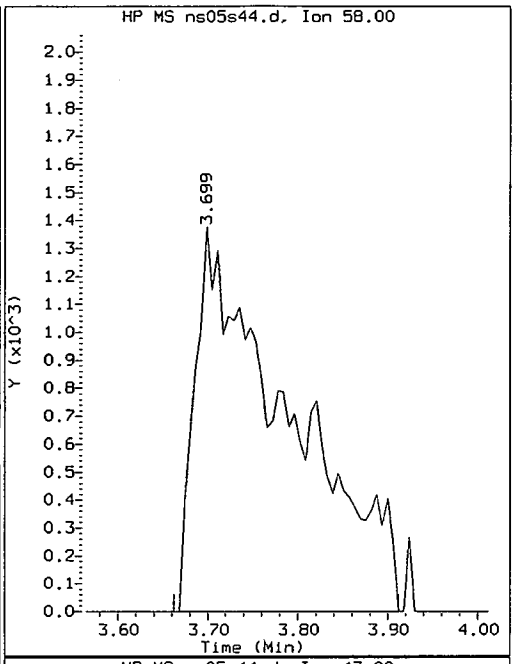


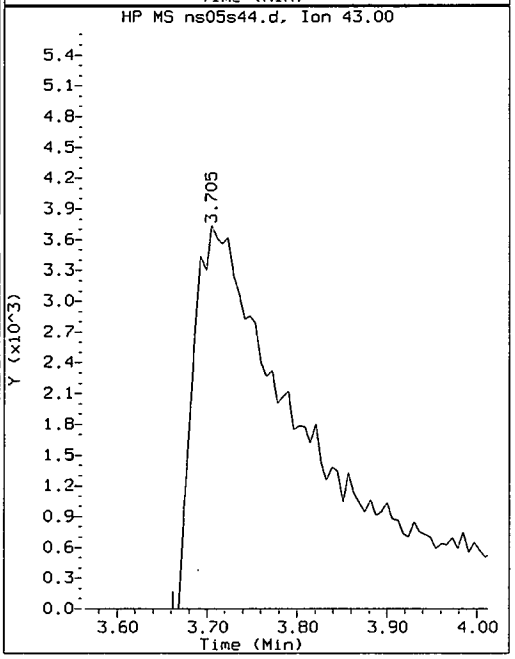
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem/HP07159.i/12sep05b.b/ns05s44.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:29 Analyst ID: ERS02237

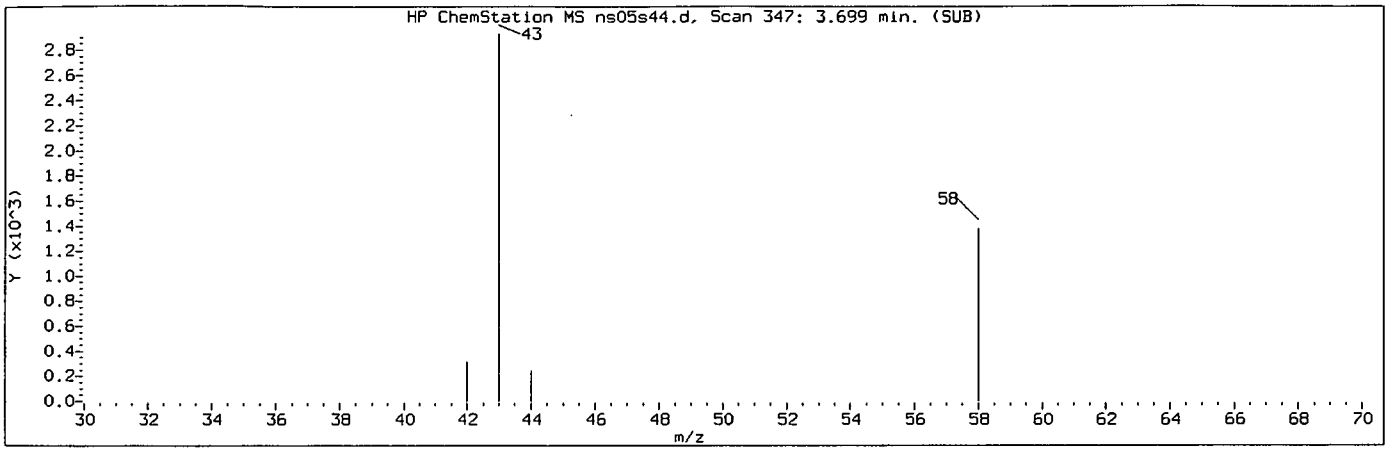
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT16 Lab Sample ID: 6769195

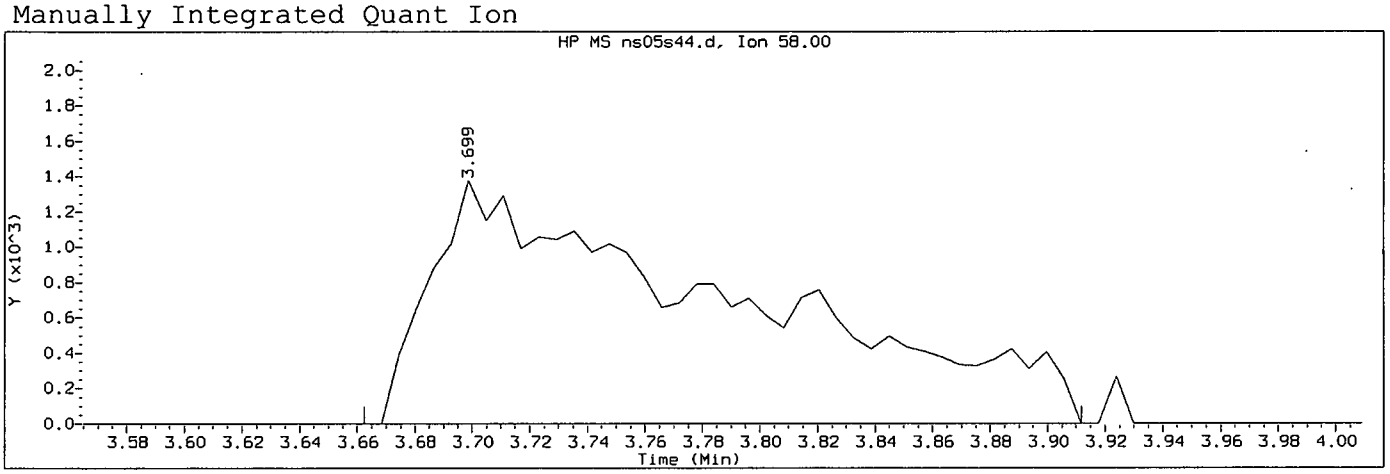
Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 347
Retention Time (minutes)	: 3.699
Relative Retention Time	:-0.01007
Quant Ion	: 58.00
Area (flag)	: 9966M
On-Column Amount (ng)	: 8.8381

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s44.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:29 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT16 Lab Sample ID: 6769195

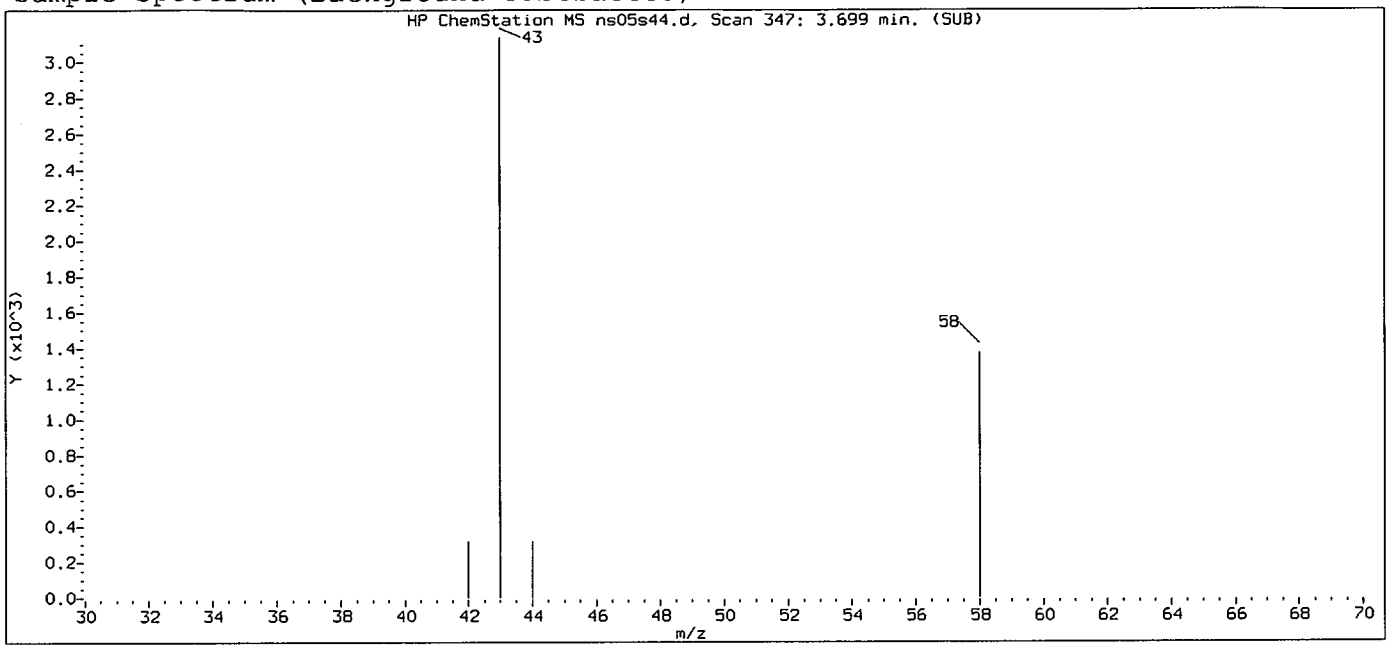
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 347		
Retention Time (minutes)	: 3.699		
Quant Ion	: 58.00		
Area (flag)	: 9966M		
On-Column Amount (ng)	: 8.8381		
Integration start scan	: 340	Integration stop scan:	381
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

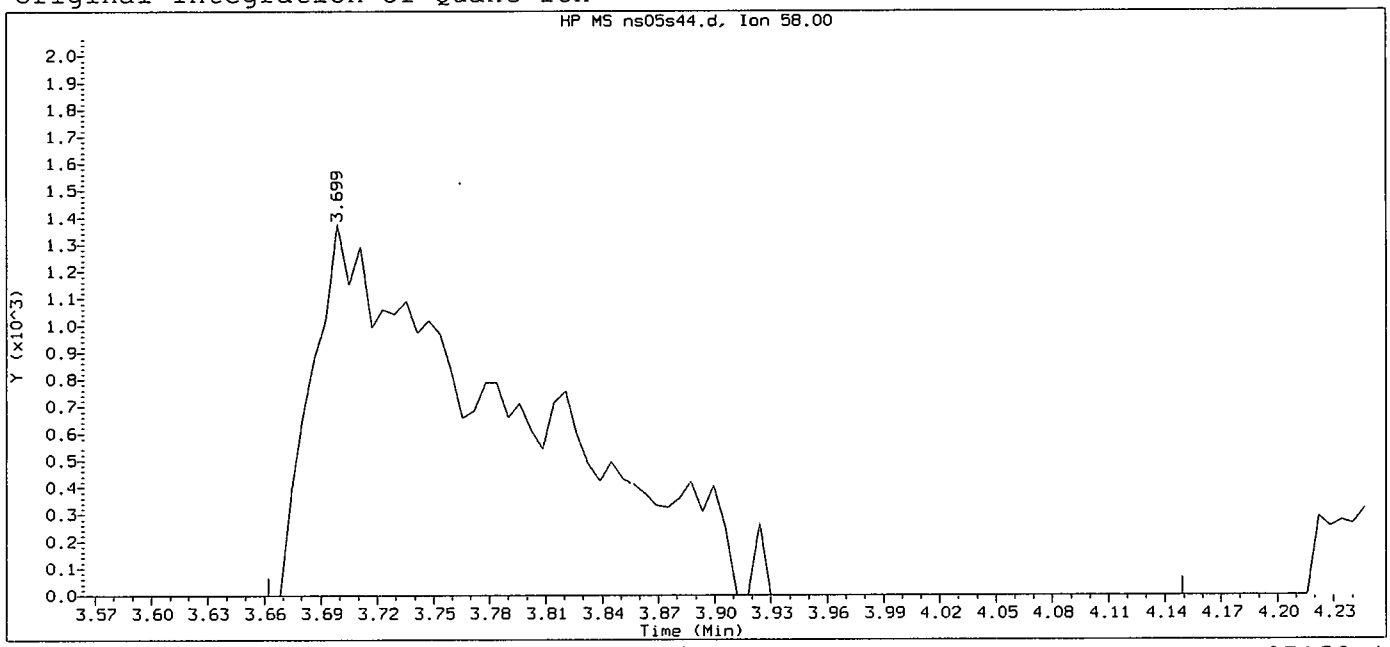
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s44.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:29 Analyst ID: ERS02237

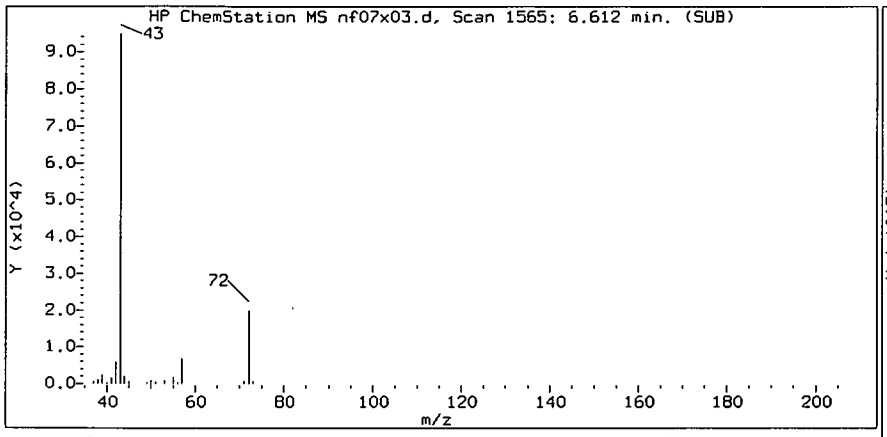
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 18:49 Automation

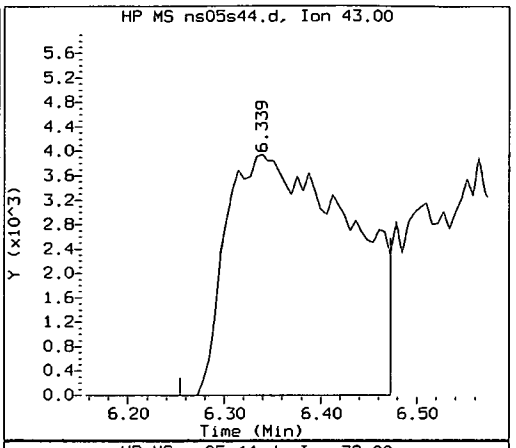
Sample Name: PAT16 Lab Sample ID: 6769195

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 347		
Retention Time (minutes)	: 3.699		
Quant Ion	: 58.00		
Area	: 10064		
On-column Amount (ng)	: 8.9257		
Integration start scan	: 340	Integration stop scan:	420
Y at integration start	: 0	Y at integration end:	0

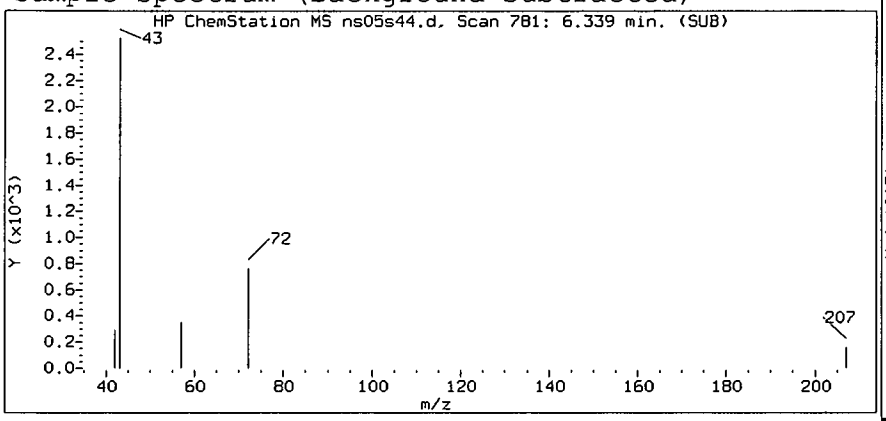
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

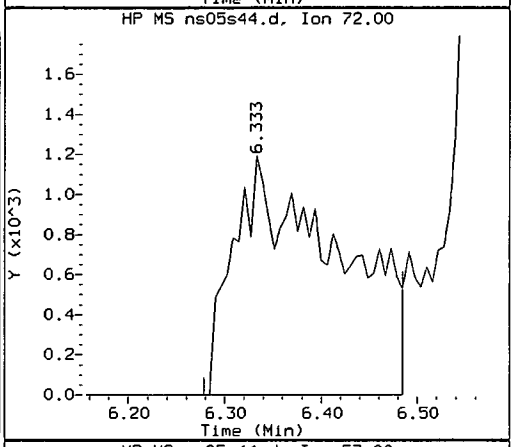
Reference Standard Spectrum for 2-Butanone



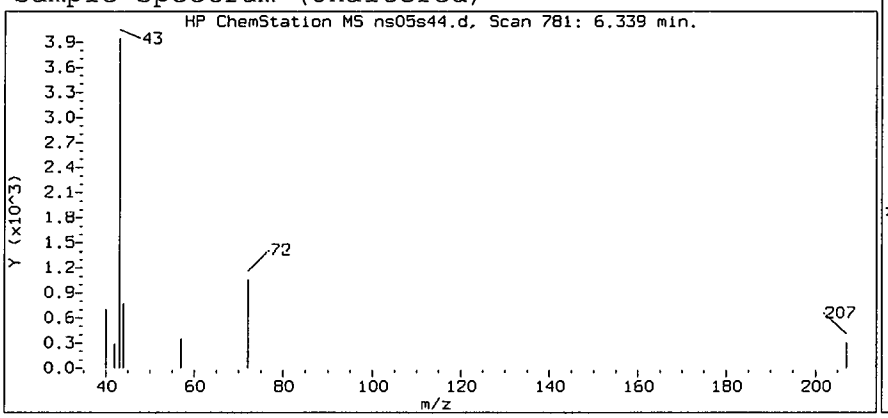


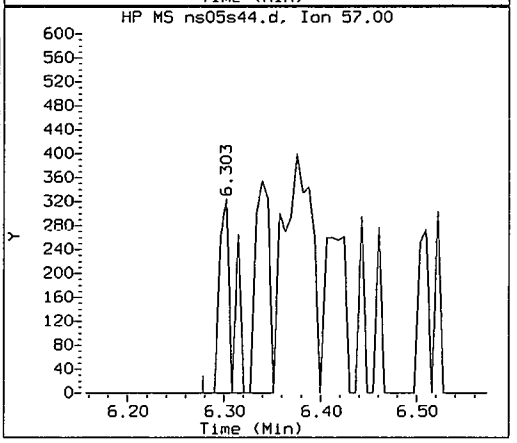
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s44.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:29 Analyst ID: ERS02237

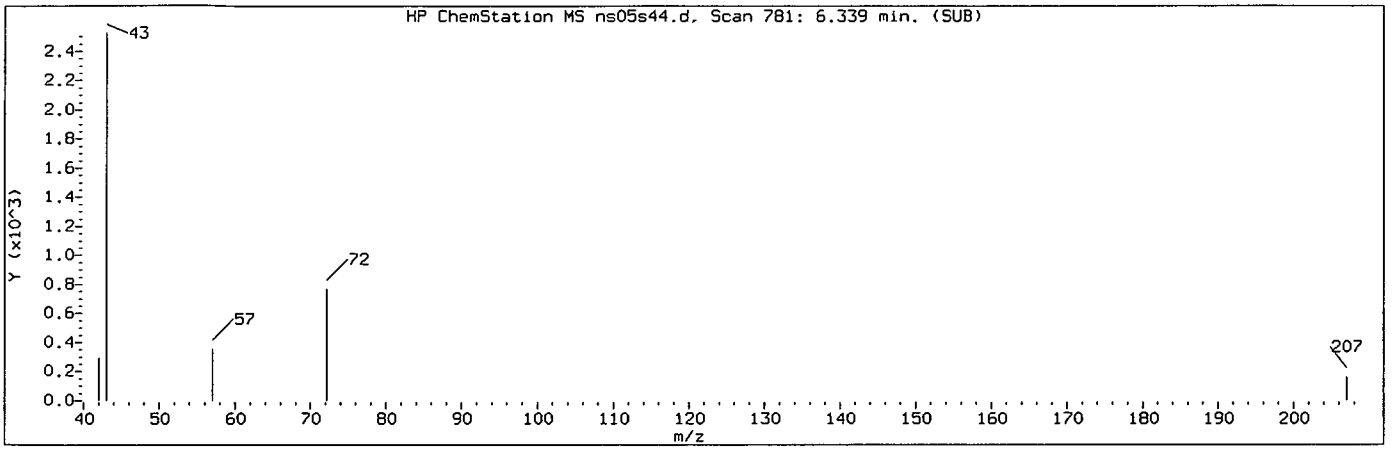
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT16 Lab Sample ID: 6769195

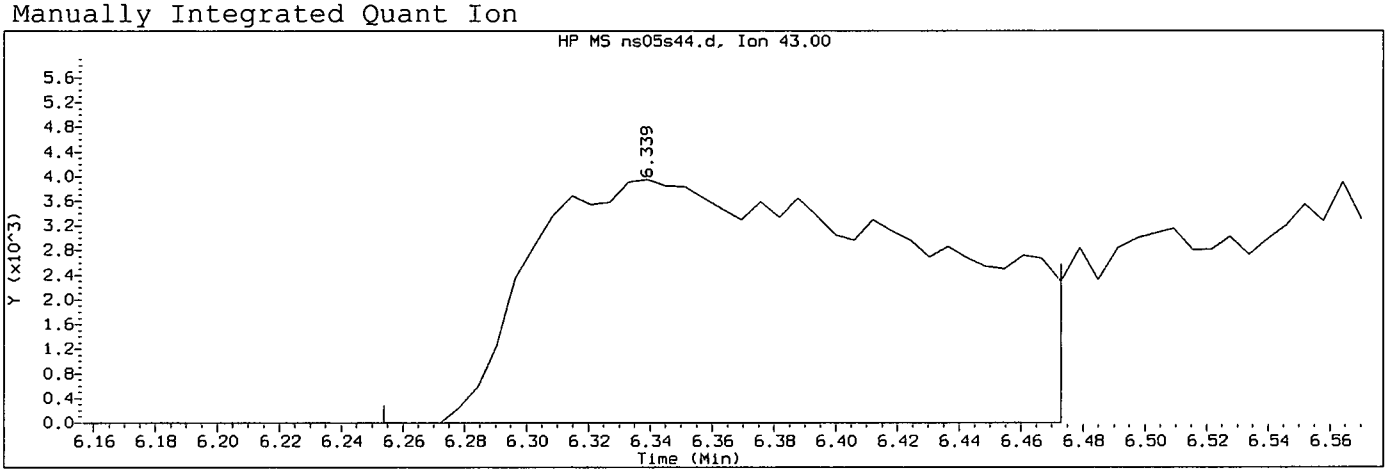
Compound Number	: 42
Compound Name	: 2-Butanone
Scan Number	: 781
Retention Time (minutes)	: 6.339
Relative Retention Time	:-0.02466
Quant Ion	: 43.00
Area (flag)	: 35269A
On-Column Amount (ng)	: 6.6277

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s44.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:29 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PAT16 Lab Sample ID: 6769195

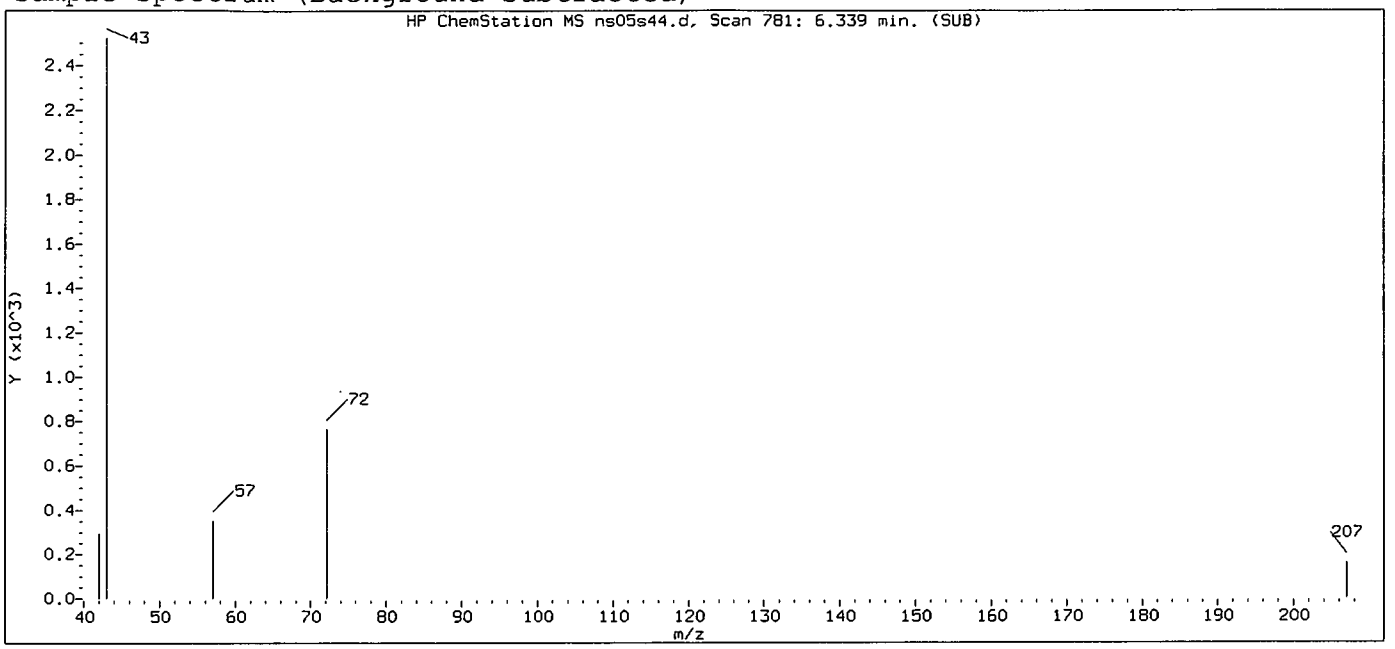
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 781		
Retention Time (minutes)	: 6.339		
Quant Ion	: 43.00		
Area (flag)	: 35269A		
On-Column Amount (ng)	: 6.6277		
Integration start scan	: 766	Integration stop scan:	802
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

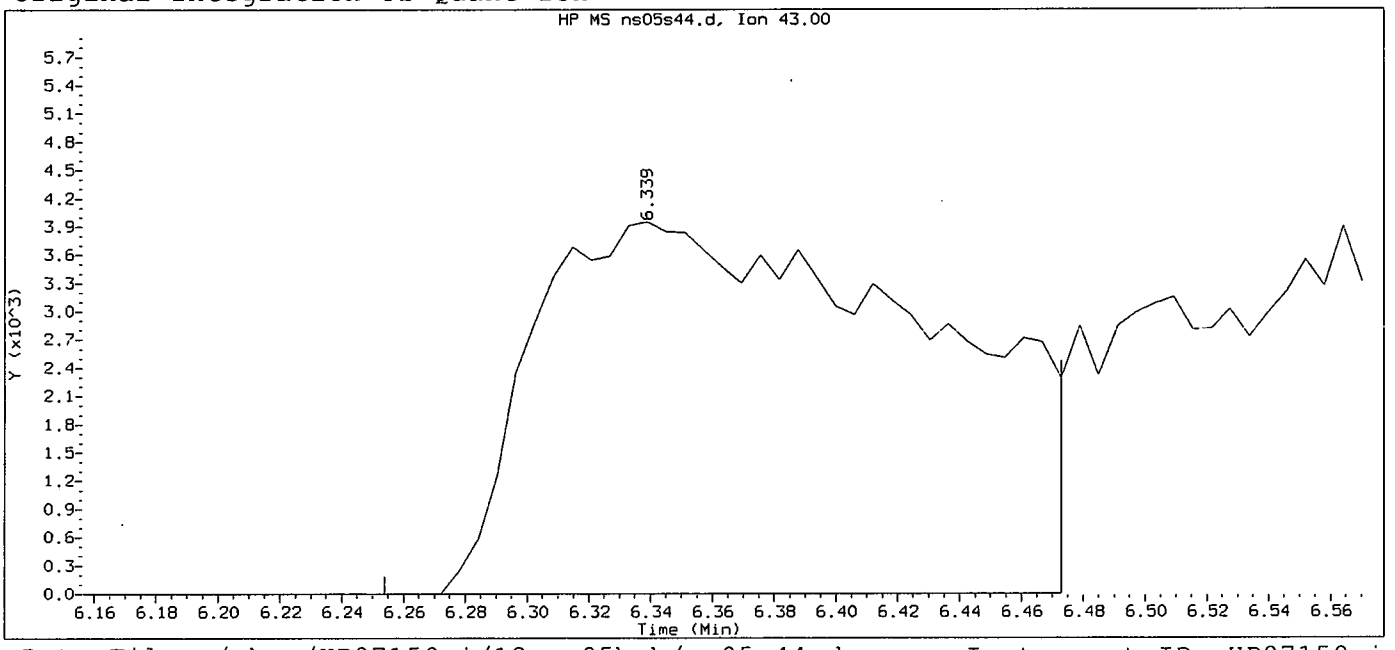
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s44.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:29 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 18:49 Automation

Sample Name: PAT16 Lab Sample ID: 6769195

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 781		
Retention Time (minutes)	: 6.339		
Quant Ion	: 43.00		
Area	: 35269		
On-column Amount (ng)	: 6.6278		
Integration start scan	: 766	Integration stop scan:	802
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:32.
Target 3.5 esignature user ID: sag03174

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

PA19D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769198

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s47.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	2	J
67-64-1	Acetone	12	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	9	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	3	J
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA19D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769198

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s47.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA19D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769198

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s47.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PA19D

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769198

Data file: /chem/HP07159.i/12sep05b.b/ns05s47.d
Data file Sample Info. Line: PA19D;6769198;1;0;;PTL09;PLM;;ns05b05;
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Injection date and time: **05-SEP-2012 19:39**
Instrument ID: **HP07159.i** Batch: **N122492AA**

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.259(-0.021)	439	65	331249 (-13)	250.00	
70) Fluorobenzene	7.714(-0.003)	1007	96	1392400 (-8)	50.00	
98) Chlorobenzene-d5	11.176(-0.009)	1576	117	978369 (-8)	50.00	
130) 1,4-Dichlorobenzene-d4	13.061(-0.033)	1886	152	560783 (-11)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.795(-0.001)	113	319404	51.317	103%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.258(-0.001)	102	84386	50.690	101%		77 - 113
86) Toluene-d8	(2)	9.734(0.000)	98	1319603	48.208	96%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.185(-0.002)	95	481732	48.405	97%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
4) Vinyl Chloride	(1)			Not Detected					1	5
5) Bromomethane	(1)			Not Detected					1	5
7) Chloroethane	(1)			Not Detected					1	5
8) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.577(-0.000)	96	11731	2.071	2.07		J	0.8	5
19) Acetone	(1)	3.687(-0.008)	58	14095M	12.062	12.06		J	6	20
25) Methylene Chloride	(1)			Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
42) 2-Butanone	(1)	6.339(-0.025)	43	51094MA	9.265	9.27		J	3	10
44) 2,2-Dichloropropane	(1)			Not Detected					1	5
48) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)	6.582(-0.002)	83	37421	3.187	3.19		J	0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)			Not Detected					1	5
59) Carbon Tetrachloride	(1)			Not Detected					1	5
65) Benzene	(1)			Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
76) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
81) Bromodichloromethane	(1)			Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
88) Toluene	(2)			Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:33. Target 3.5 esignature user ID: sag03174

PA19D

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769198

Data file: /chem/HP07159.i/12sep05b.b/ns05s47.d
Injection date and time: **05-SEP-2012 19:39**
Data file Sample Info. Line: PA19D;6769198;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

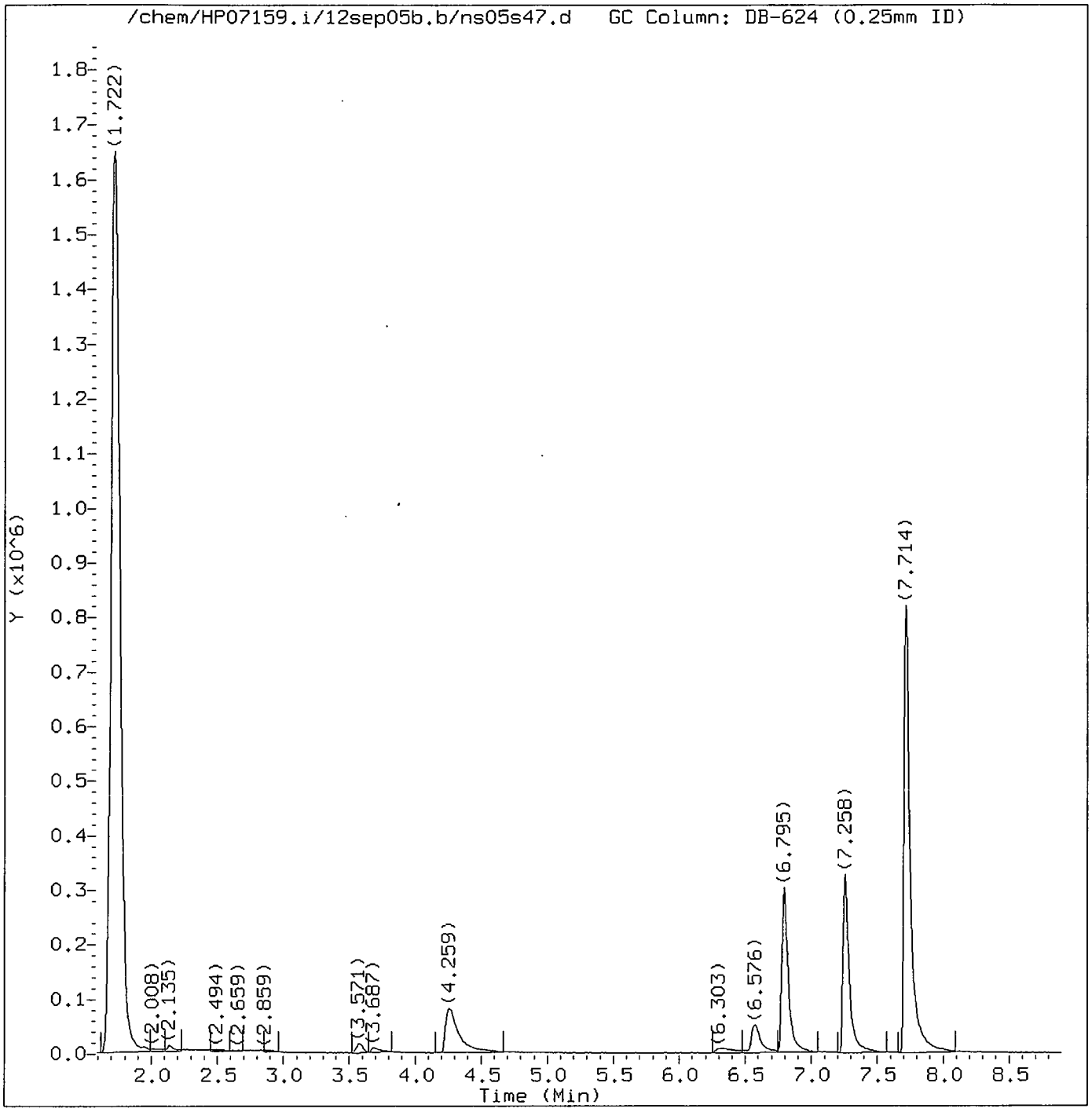
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)			Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)			Not Detected					1	5
96) Dibromochloromethane	(2)			Not Detected					1	5
97) 1,2-Dibromoethane	(2)			Not Detected					1	5
100) Chlorobenzene	(2)			Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)			Not Detected					1	5
102) Ethylbenzene	(2)			Not Detected					0.8	5
103) m+p-Xylene	(2)			Not Detected					0.8	5
106) o-Xylene	(2)			Not Detected					0.8	5
109) Styrene	(2)			Not Detected					1	5
110) Bromoform	(2)			Not Detected					1	5
111) Isopropylbenzene	(2)			Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					1	5
117) Bromobenzene	(3)			Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)			Not Detected					1	5
120) n-Propylbenzene	(3)			Not Detected					1	5
121) 2-Chlorotoluene	(3)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)			Not Detected					1	5
123) 4-Chlorotoluene	(3)			Not Detected					1	5
124) tert-Butylbenzene	(3)			Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)			Not Detected					1	5
127) sec-Butylbenzene	(3)			Not Detected					1	5
128) p-Isopropyltoluene	(3)			Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)			Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)			Not Detected					1	5
136) n-Butylbenzene	(3)			Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)			Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)			Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)			Not Detected					1	5
141) Hexachlorobutadiene	(3)			Not Detected					2	5
142) Naphthalene	(3)			Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)			Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:33. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

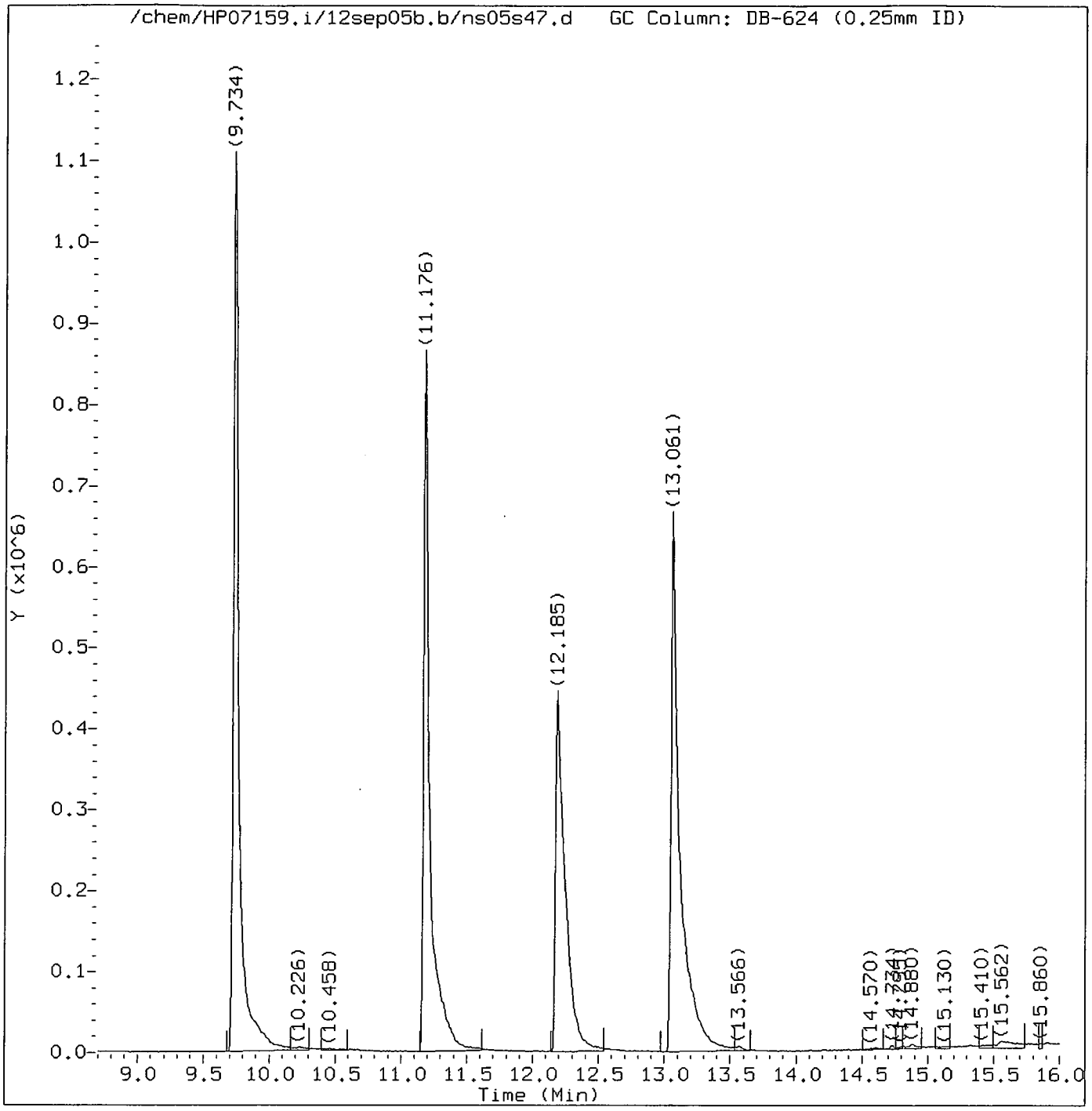
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:39 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PA19D Lab Sample ID: 6769198

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:33.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:39 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PA19D Lab Sample ID: 6769198

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:33.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:39 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

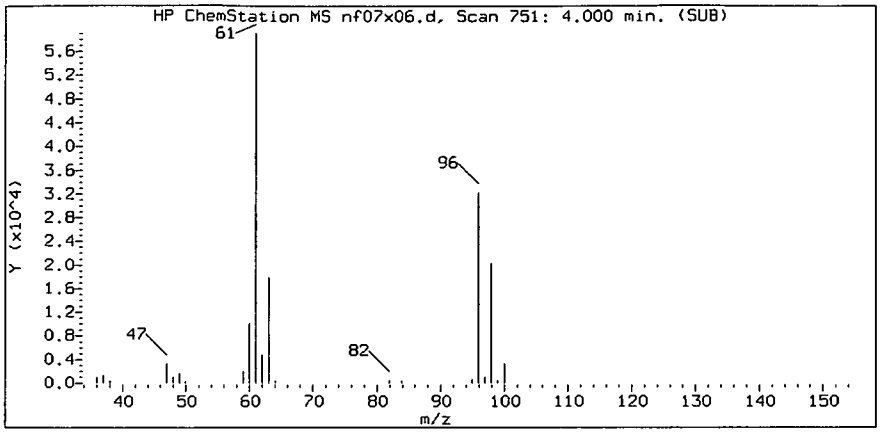
Sample Name: PA19D Lab Sample ID: 6769198

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.577	96	11731	2.071
19) Acetone	(1)	3.687	58	14095M	12.062
26)*t-Butyl Alcohol-d10	(4)	4.259	65	331249	250.000
42) 2-Butanone	(1)	6.339	43	51094MA	9.265
50) Chloroform	(1)	6.582	83	37421	3.187
51)$Dibromofluoromethane	(1)	6.795	113	319404	51.317
62)$1,2-Dichloroethane-d4	(1)	7.258	102	84386	50.690
70)*Fluorobenzene	(1)	7.714	96	1392400	50.000
86)$Toluene-d8	(2)	9.734	98	1319603	48.208
98)*Chlorobenzene-d5	(2)	11.176	117	978369	50.000
114)$4-Bromofluorobenzene	(2)	12.185	95	481732	48.405
130)*1,4-Dichlorobenzene-d4	(3)	13.061	152	560783	50.000

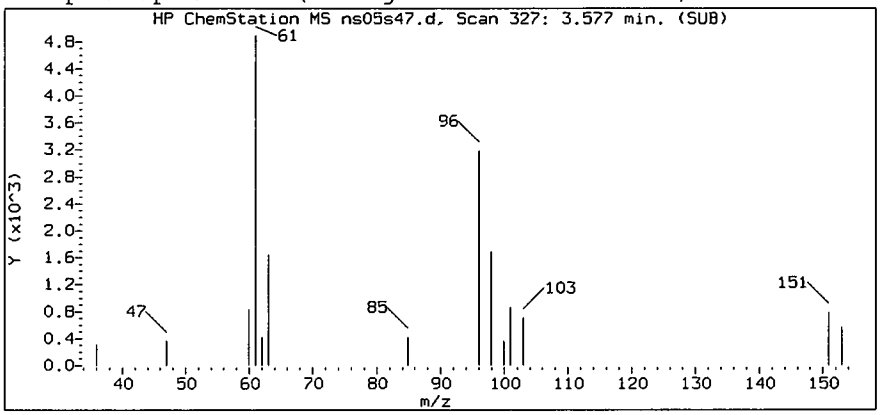
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:33.
Target 3.5 esignature user ID: sag03174

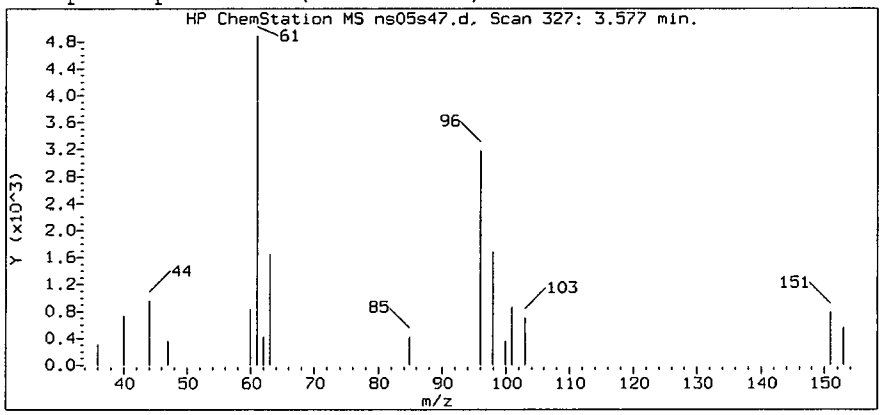
Reference Standard Spectrum for 1,1-Dichloroethene

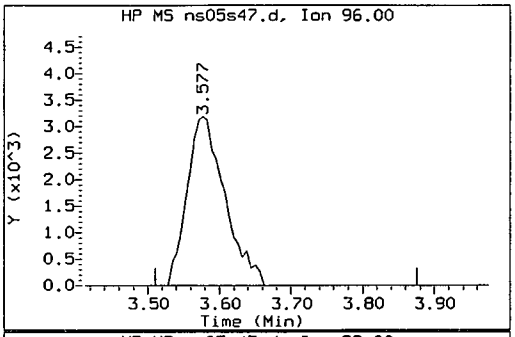


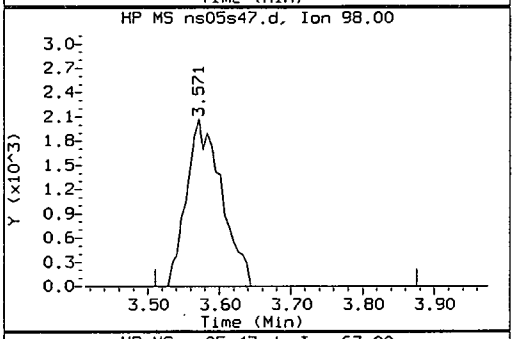
Sample Spectrum (Background Subtracted)

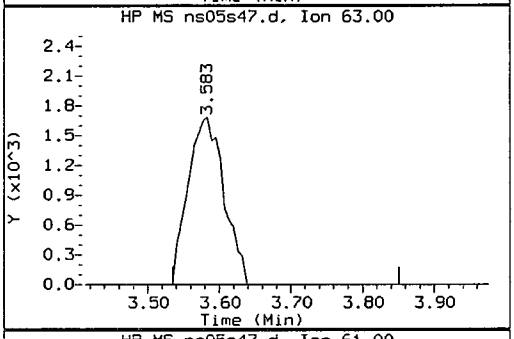


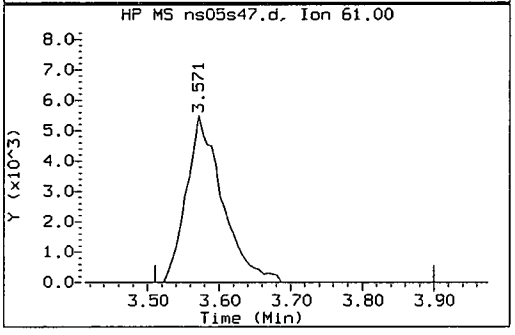
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:39 Analyst ID: ERS02237

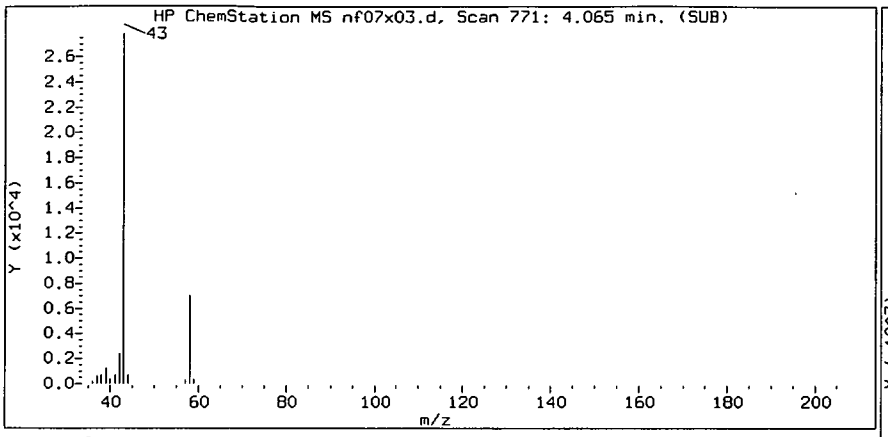
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

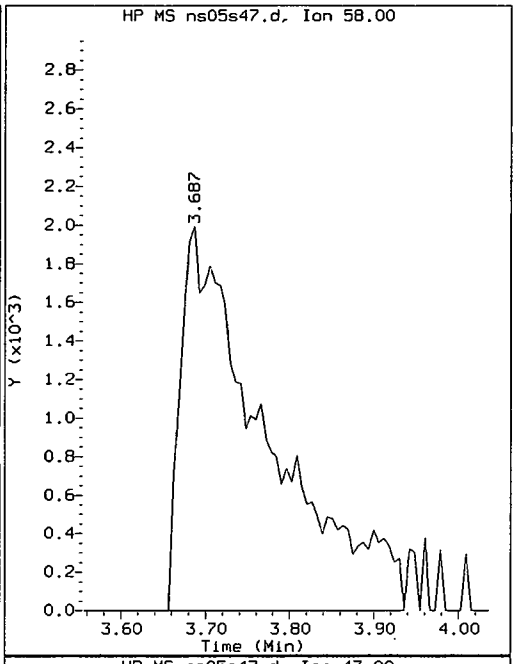
Sample Name: PA19D Lab Sample ID: 6769198

Compound Number : 16
Compound Name : 1,1-Dichloroethene
Scan Number : 327
Retention Time (minutes): 3.577
Relative Retention Time :-0.00021
Quant Ion : 96.00
Area (flag) : 11731
On-Column Amount (ng) : 2.0711

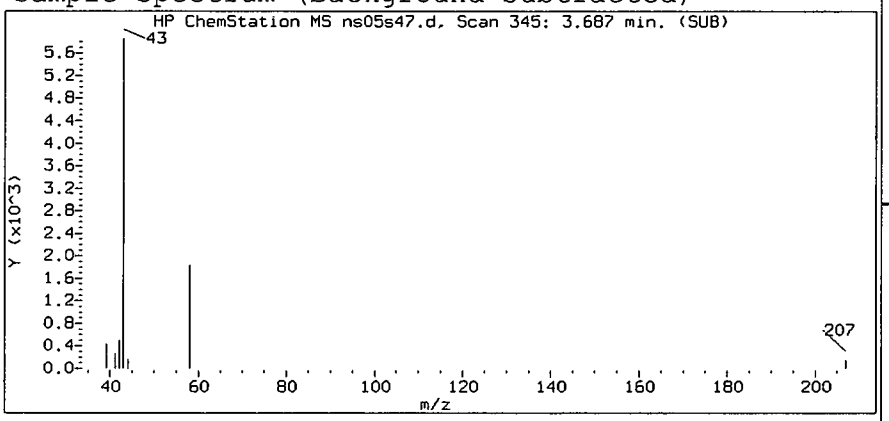
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:33.
Target 3.5 esignature user ID: sag03174

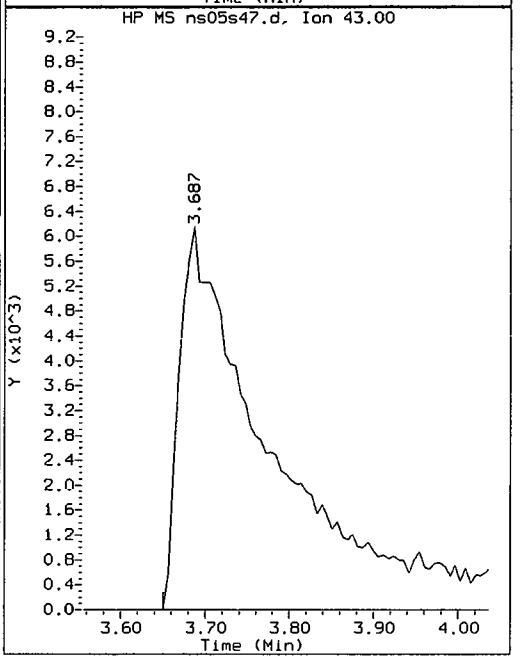
Reference Standard Spectrum for Acetone



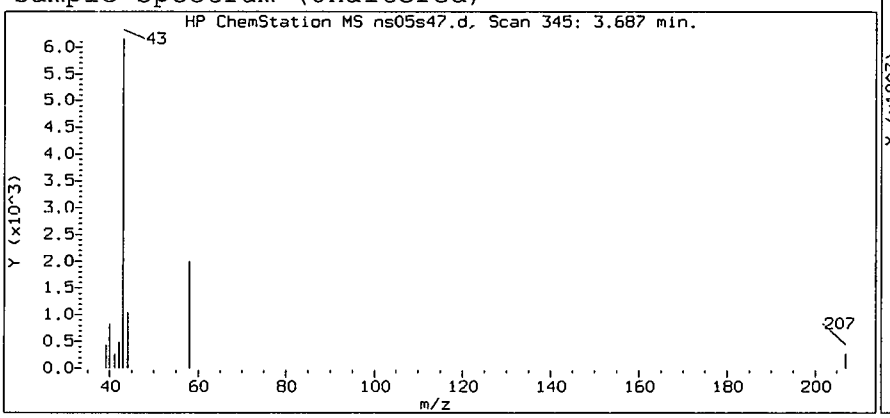


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d
Injection date and time: 05-SEP-2012 19:39

Instrument ID: HP07159.i
Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m
Calibration date and time: 05-SEP-2012 13:23

Sublist used: 8732

Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

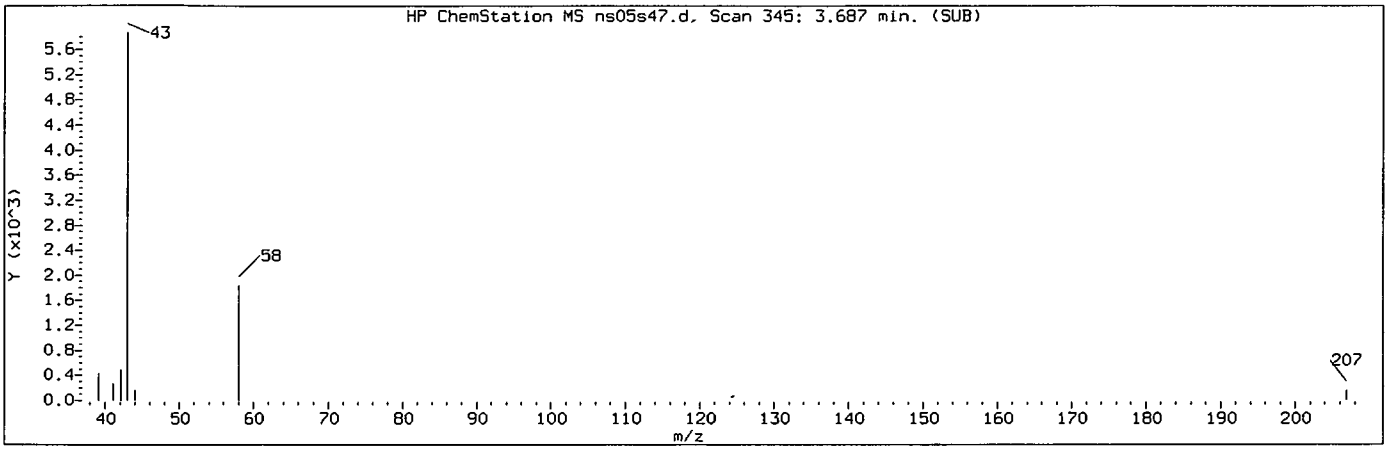
Sample Name: PA19D

Lab Sample ID: 6769198

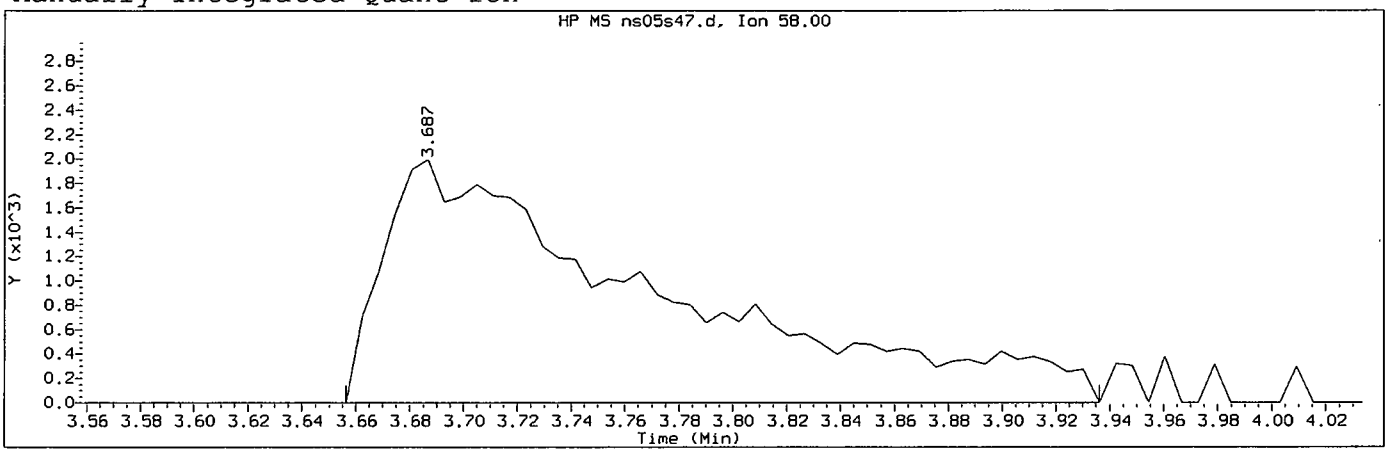
Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 345
Retention Time (minutes)	: 3.687
Relative Retention Time	:-0.00888
Quant Ion	: 58.00
Area (flag)	: 14095M
On-Column Amount (ng)	: 12.0624

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:33.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:39 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PA19D Lab Sample ID: 6769198

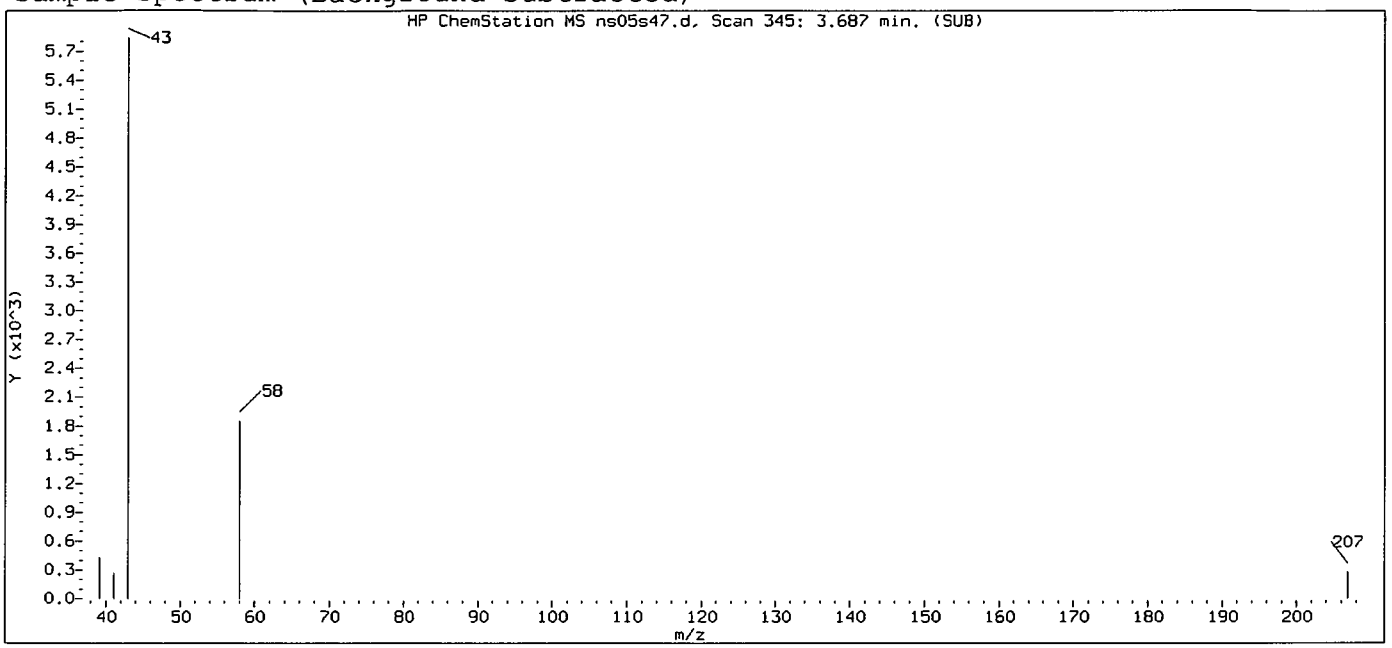
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 345		
Retention Time (minutes)	: 3.687		
Quant Ion	: 58.00		
Area (flag)	: 14095M		
On-Column Amount (ng)	: 12.0624		
Integration start scan	: 339	Integration stop scan:	385
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

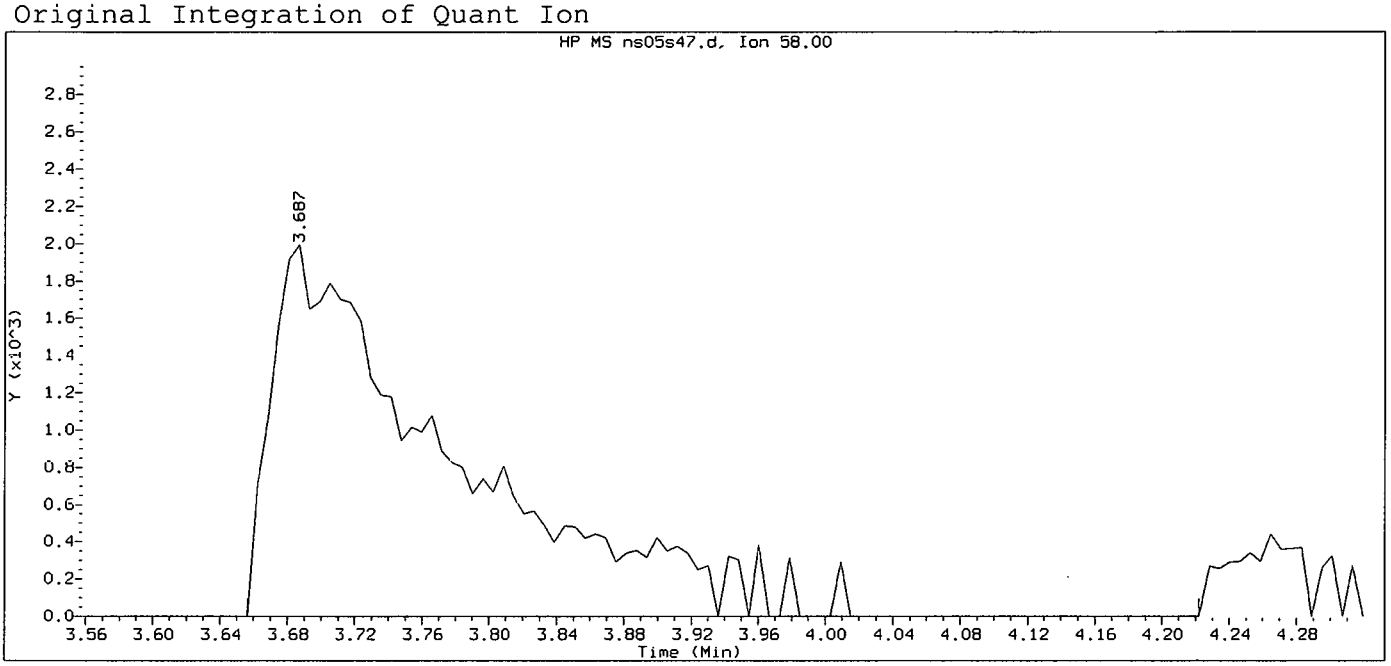
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:33.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:39 Analyst ID: ERS02237

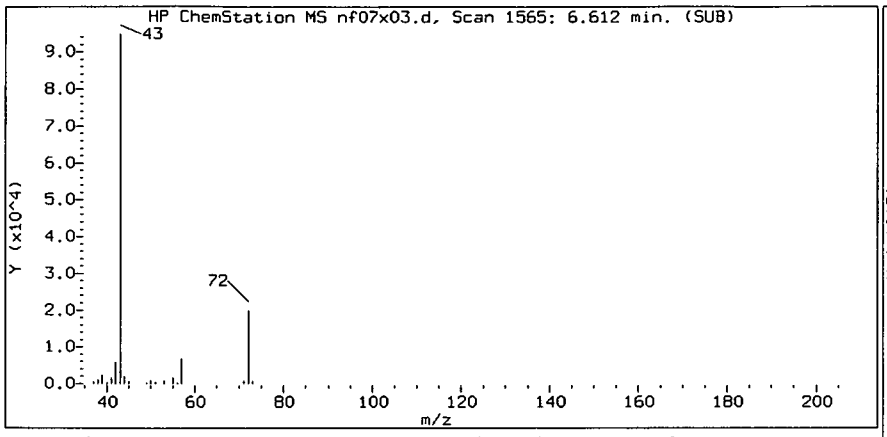
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:59 Automation

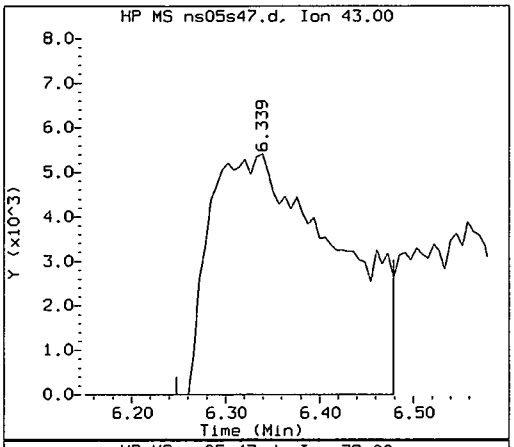
Sample Name: PA19D Lab Sample ID: 6769198

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 345		
Retention Time (minutes)	: 3.687		
Quant Ion	: 58.00		
Area	: 14686		
On-column Amount (ng)	: 12.5688		
Integration start scan	: 339	Integration stop scan:	432
Y at integration start	: 0	Y at integration end:	0

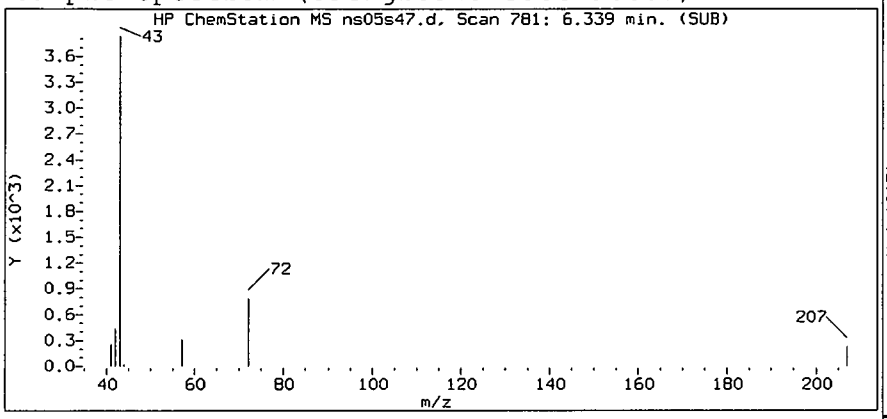
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:33.
Target 3.5 esignature user ID: sag03174

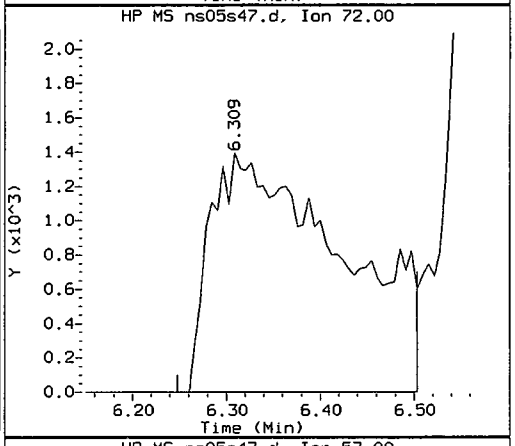
Reference Standard Spectrum for 2-Butanone



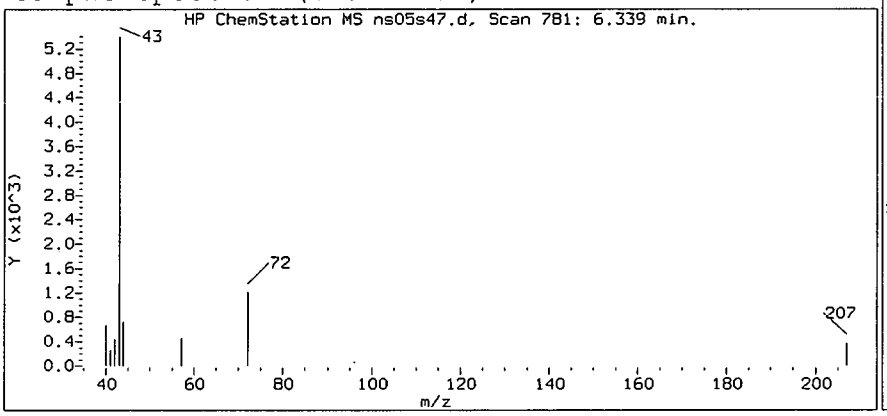


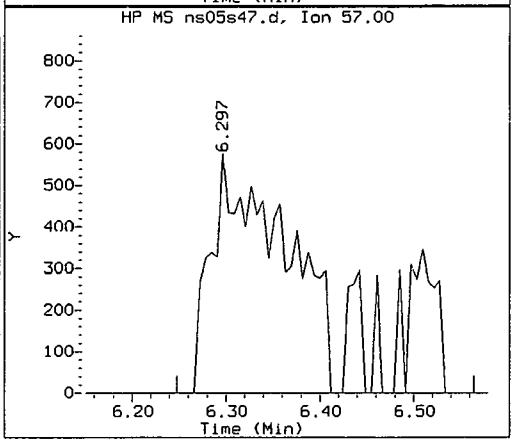
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:39 Analyst ID: ERS02237

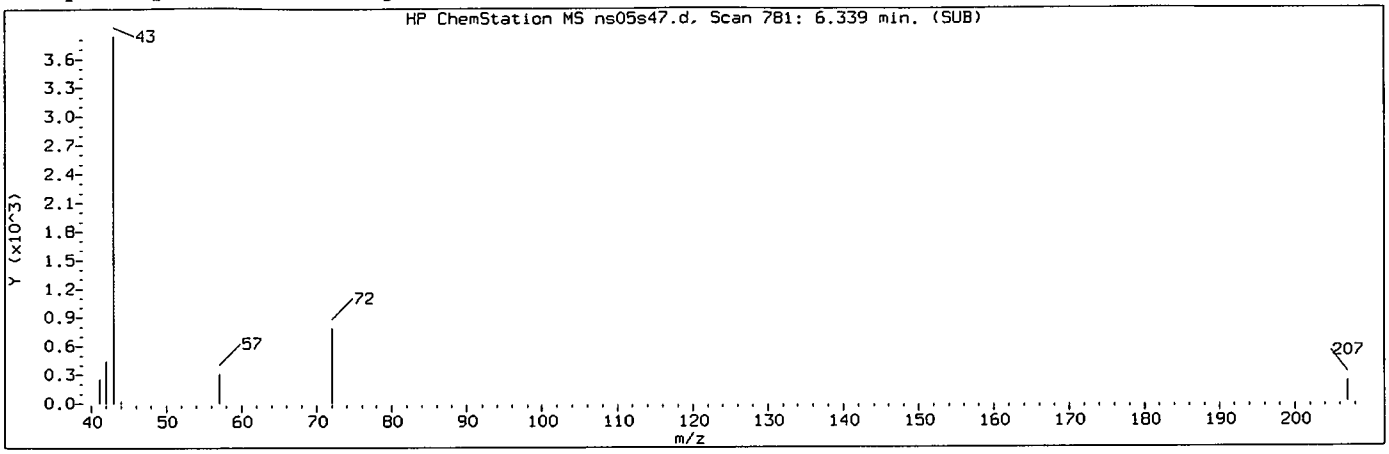
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PA19D Lab Sample ID: 6769198

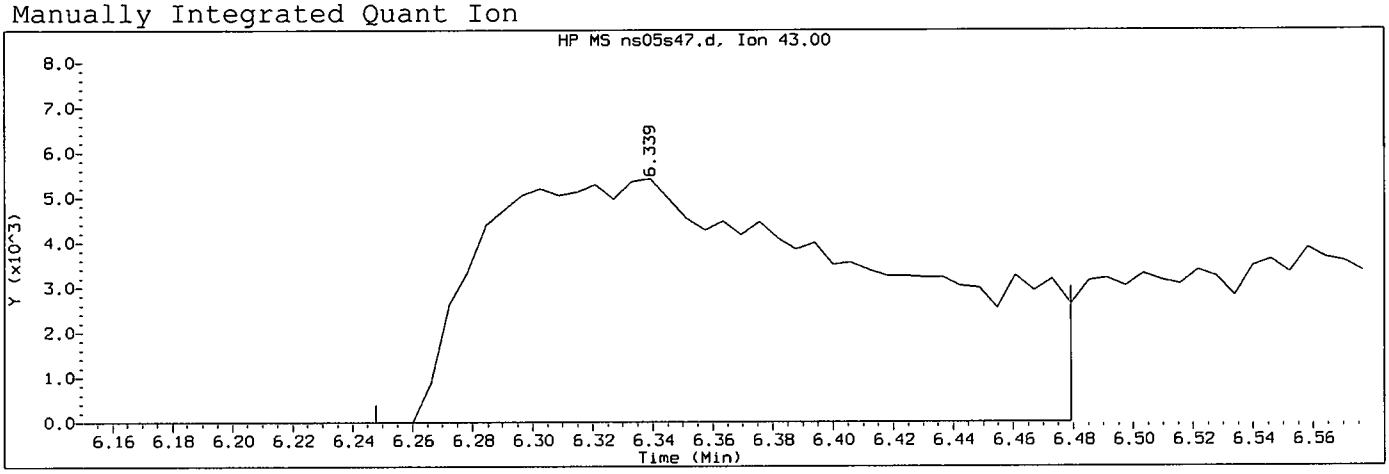
Compound Number : 42
Compound Name : 2-Butanone
Scan Number : 781
Retention Time (minutes): 6.339
Relative Retention Time :-0.02531
Quant Ion : 43.00
Area (flag) : 51094AM
On-Column Amount (ng) : 9.2655

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:33.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:39 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PA19D Lab Sample ID: 6769198

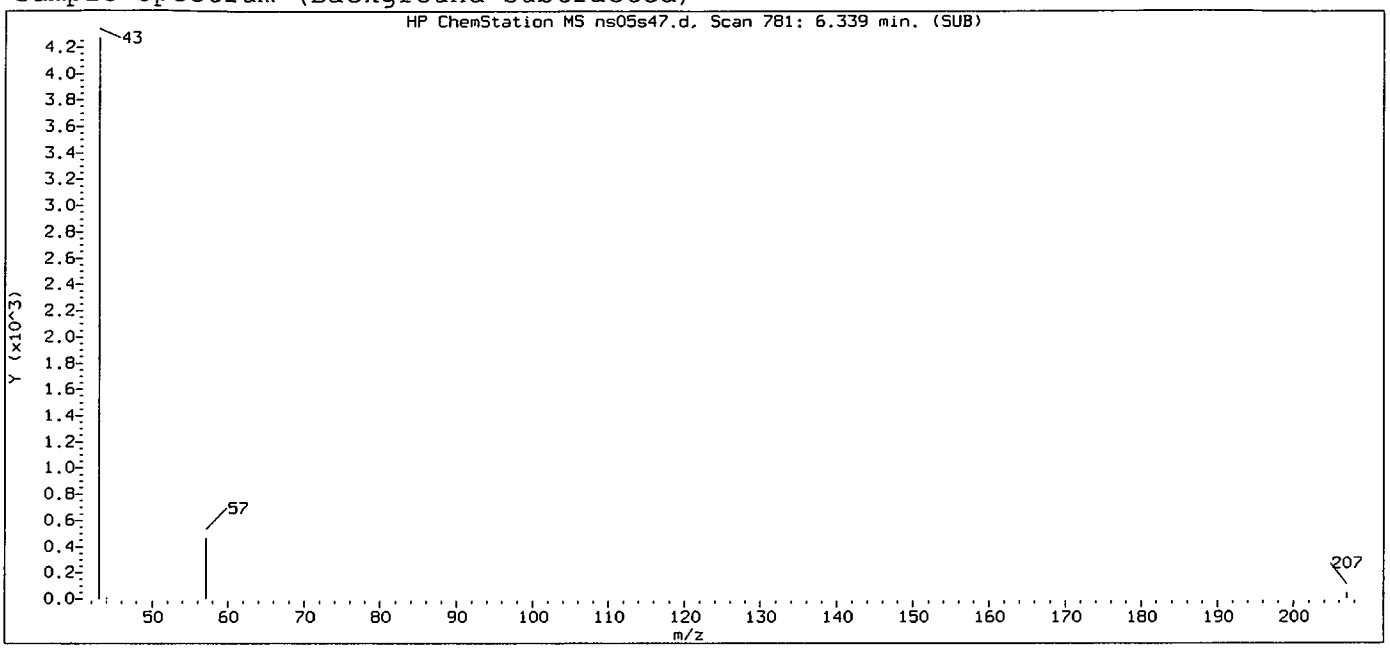
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 781		
Retention Time (minutes)	: 6.339		
Quant Ion	: 43.00		
Area (flag)	: 51094AM		
On-Column Amount (ng)	: 9.2655		
Integration start scan	: 765	Integration stop scan:	803
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

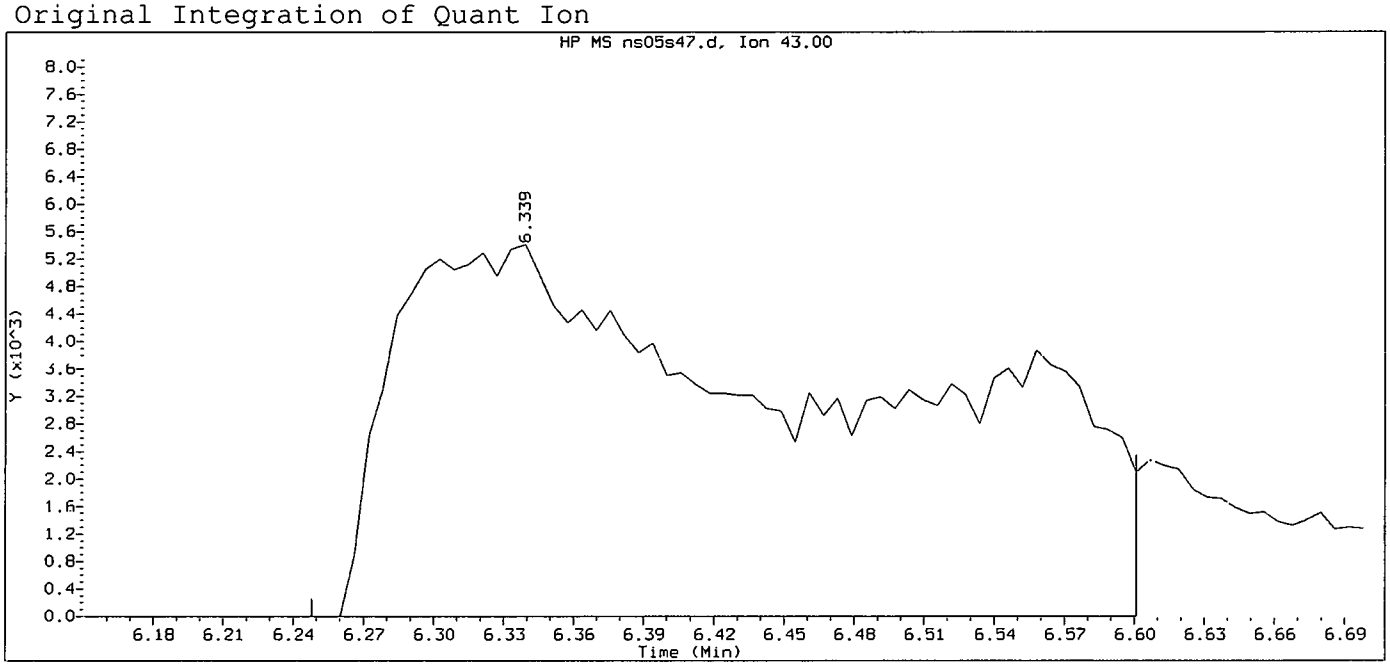
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:33. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:39 Analyst ID: ERS02237

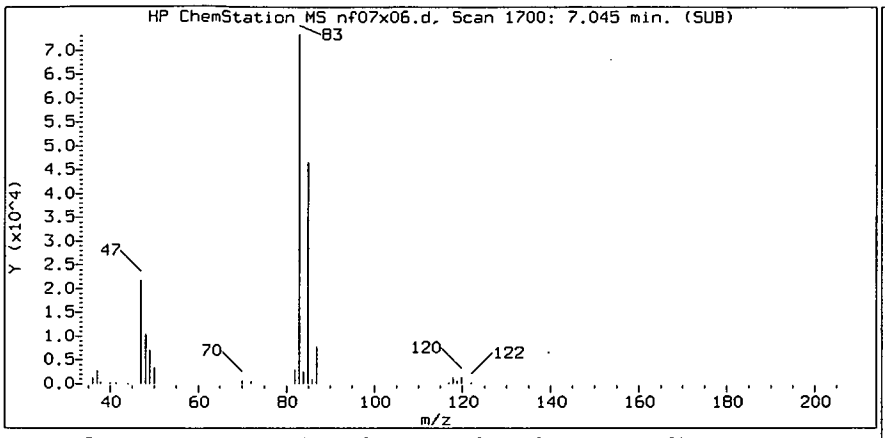
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:59 Automation

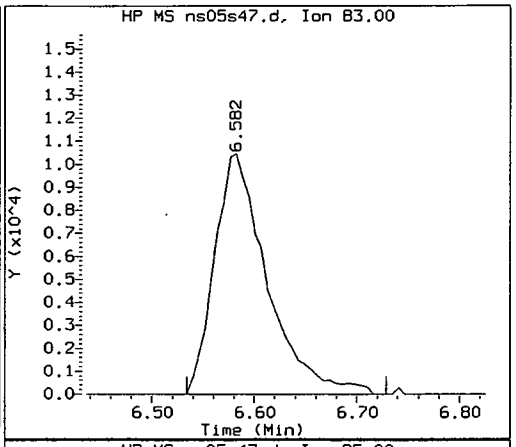
Sample Name: PA19D Lab Sample ID: 6769198

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 781		
Retention Time (minutes)	: 6.339		
Quant Ion	: 43.00		
Area	: 73827		
On-column Amount (ng)	: 13.3879		
Integration start scan	: 765	Integration stop scan:	823
Y at integration start	: 0	Y at integration end:	0

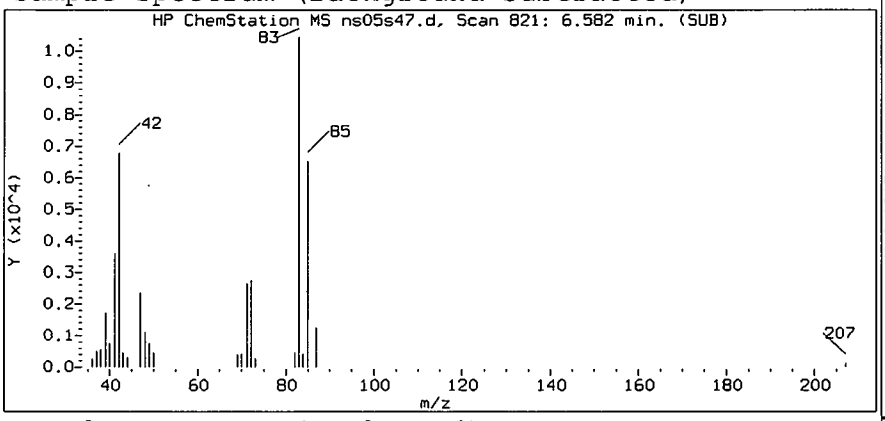
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:33.
Target 3.5 esignature user ID: sag03174

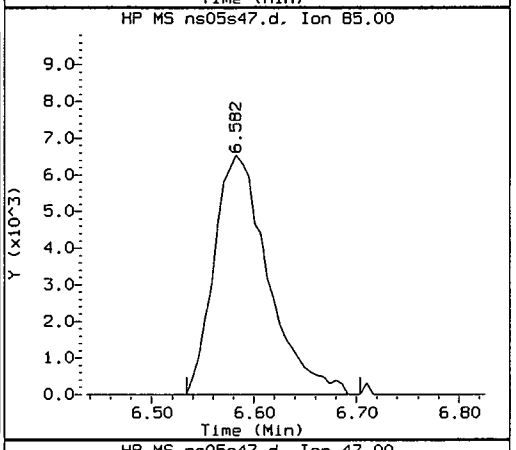
Reference Standard Spectrum for Chloroform



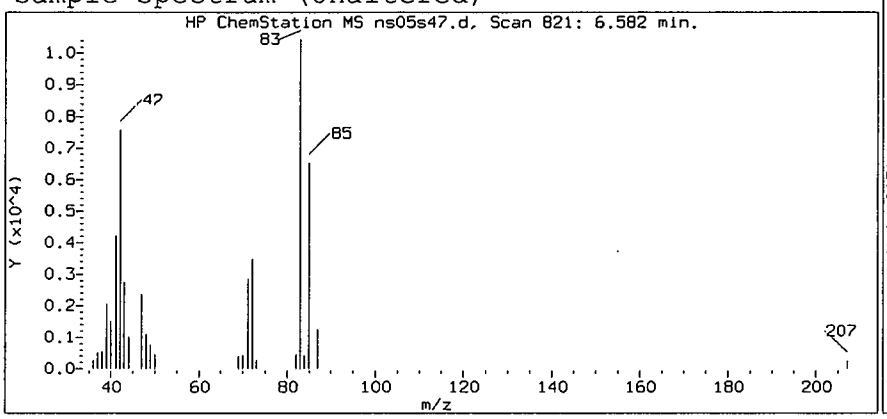


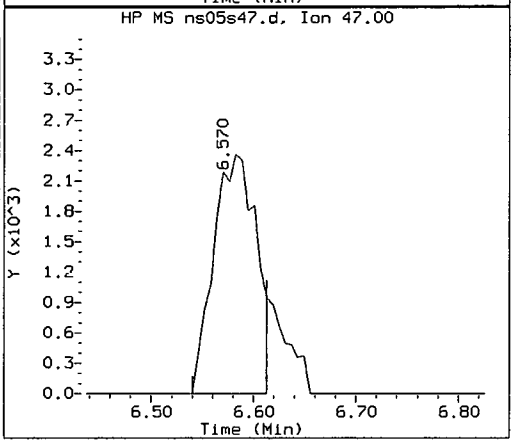
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s47.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:39 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:32 sag03174

Sample Name: PA19D Lab Sample ID: 6769198

Compound Number	: 50
Compound Name	: Chloroform
Scan Number	: 821
Retention Time (minutes)	: 6.582
Relative Retention Time	:-0.00242
Quant Ion	: 83.00
Area (flag)	: 37421
On-Column Amount (ng)	: 3.1868

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:33.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA19S

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769199

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s48.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	14	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	9	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	2	J
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA19S

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769199

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s48.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA19S

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769199

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s48.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PA19S

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769199

Data file: /chem/HP07159.i/12sep05b.b/ns05s48.d Injection date and time: **05-SEP-2012 20:02**
Data file Sample Info. Line: PA19S;6769199;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.258	(-0.021)	439	65	308232	(-19)	250.00	
70) Fluorobenzene	7.714	(-0.003)	1007	96	1358923	(-10)	50.00	
98) Chlorobenzene-d5	11.181	(-0.015)	1577	117	988347	(-7)	50.00	
130) 1,4-Dichlorobenzene-d4	13.061	(-0.033)	1886	152	553141	(-12)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.795	(-0.001)	113	317999	52.350	105%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.252	(0.000)	102	84652	52.103	104%		77 - 113
86) Toluene-d8	(2)	9.734	(0.000)	98	1294777	46.824	94%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.185	(-0.001)	95	471070	46.856	94%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)				Not Detected					0.8	5
19) Acetone	(1),	3.687	(-0.008)	58	16468M	14.440	14.44		J	6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)				Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)	6.345	(-0.026)	43	47741A	8.871	8.87		J	3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)	6.582	(-0.002)	83	17929M	1.564	1.56		J	0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6769199

Data file: /chem/HP07159.i/12sep05b.b/ns05s48.d Injection date and time: **05-SEP-2012 20:02**
Data file Sample Info. Line: PA19S;6769199;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

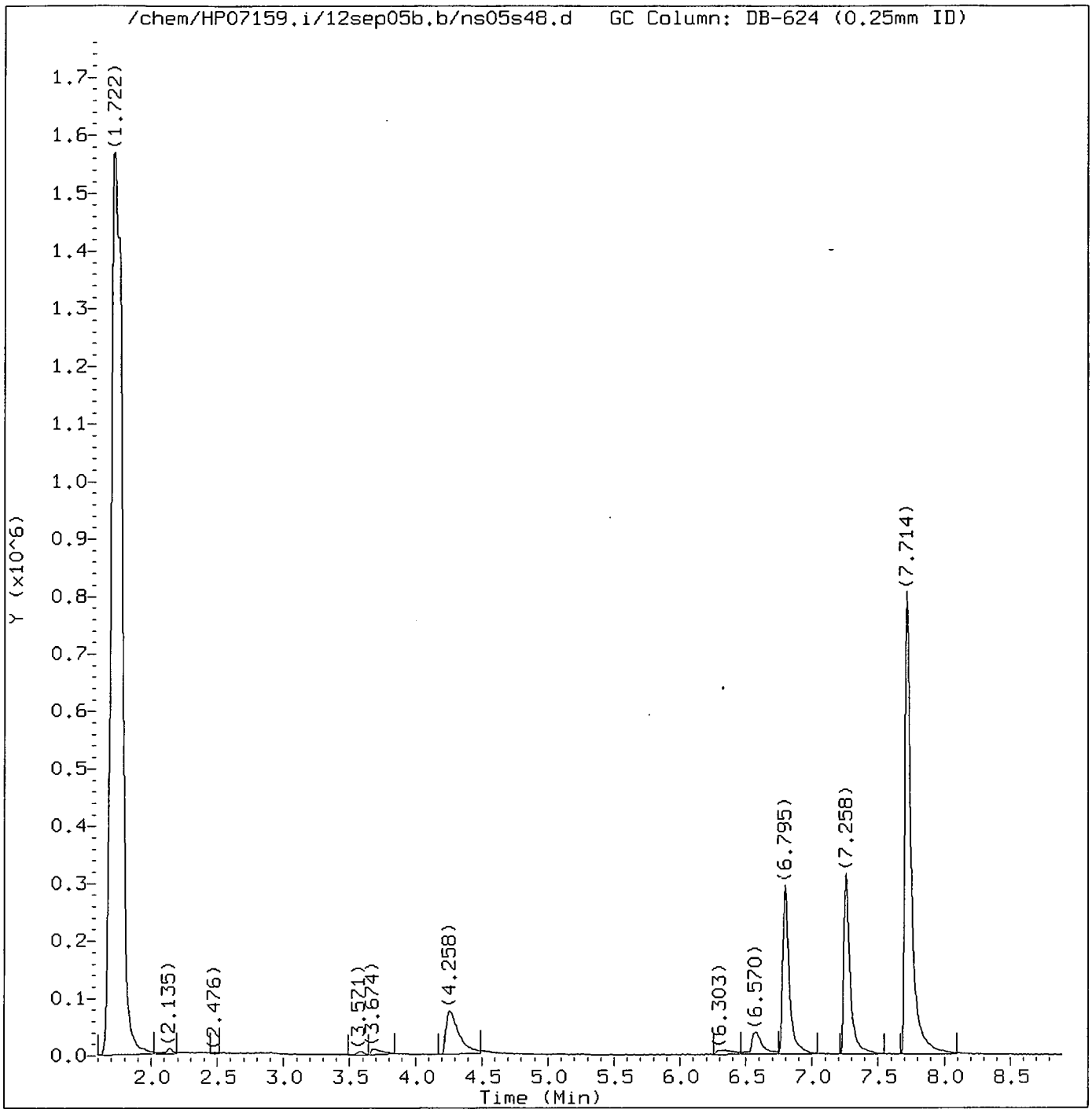
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

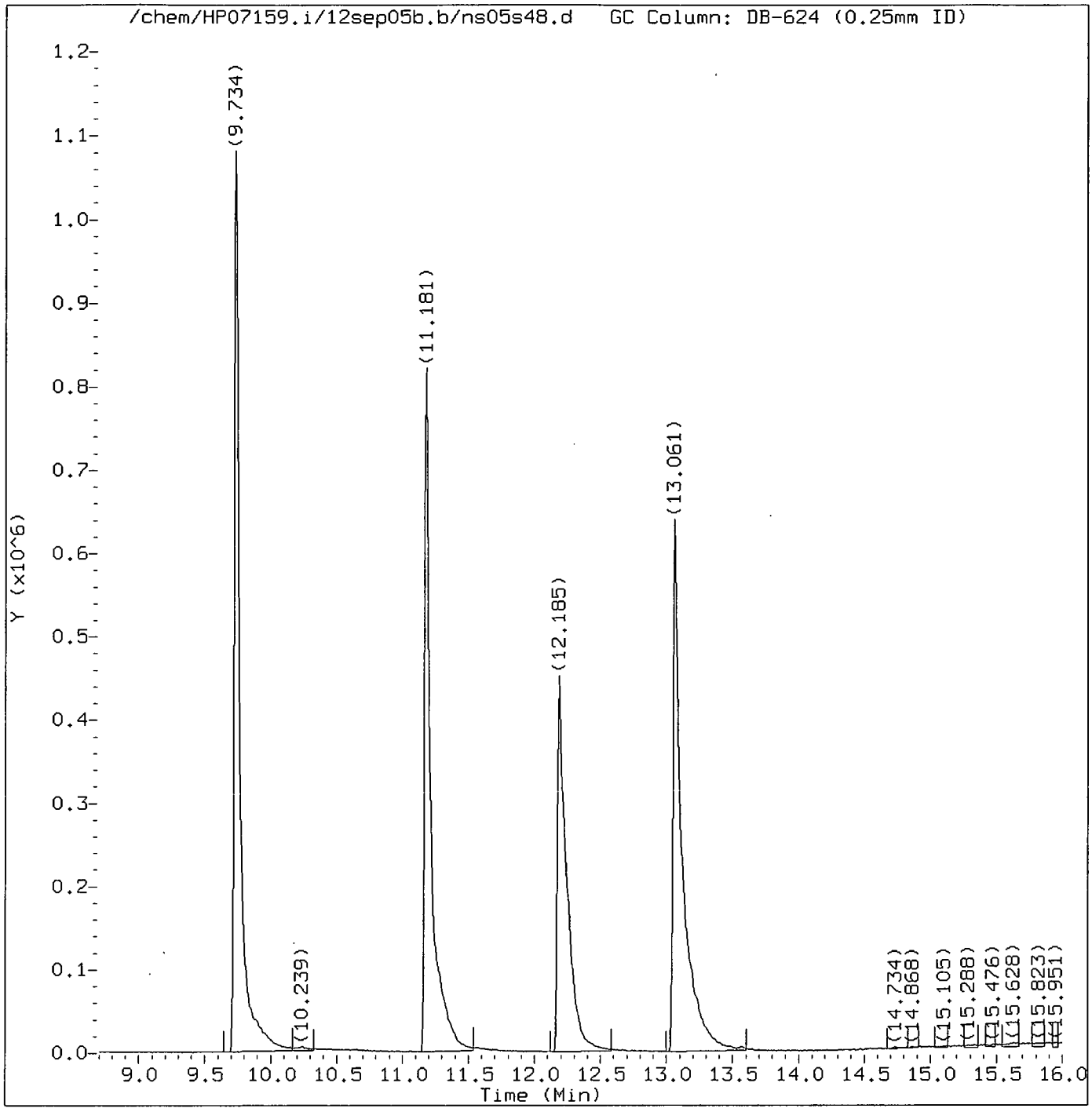
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Sample Name: PA19S Lab Sample ID: 6769199

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Sample Name: PA19S Lab Sample ID: 6769199

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Sample Name: PA19S Lab Sample ID: 6769199

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
19) Acetone	(1)	3.687	58	16468M	14.440
26)*t-Butyl Alcohol-d10	(4)	4.258	65	308232	250.000
42) 2-Butanone	(1)	6.345	43	47741A	8.871
50) Chloroform	(1)	6.582	83	17929M	1.564
51)$Dibromofluoromethane	(1)	6.795	113	317999	52.350
62)$1,2-Dichloroethane-d4	(1)	7.252	102	84652	52.103
70)*Fluorobenzene	(1)	7.714	96	1358923	50.000
86)$Toluene-d8	(2)	9.734	98	1294777	46.824
98)*Chlorobenzene-d5	(2)	11.181	117	988347	50.000
114)$4-Bromofluorobenzene	(2)	12.185	95	471070	46.856
130)*1,4-Dichlorobenzene-d4	(3)	13.061	152	553141	50.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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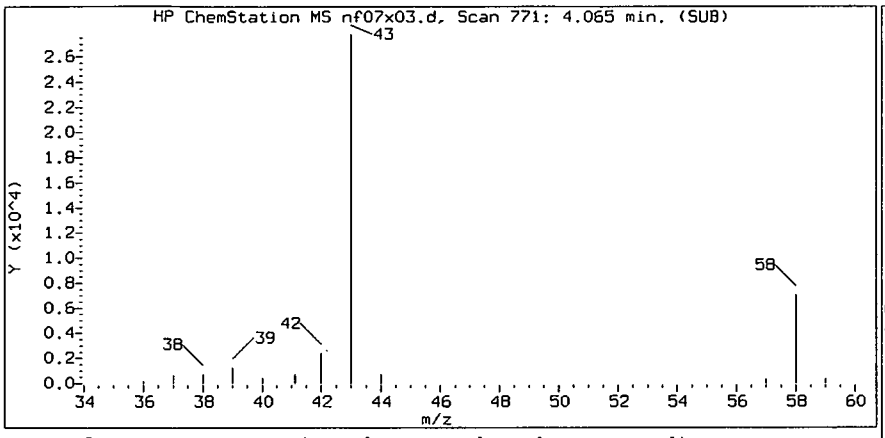
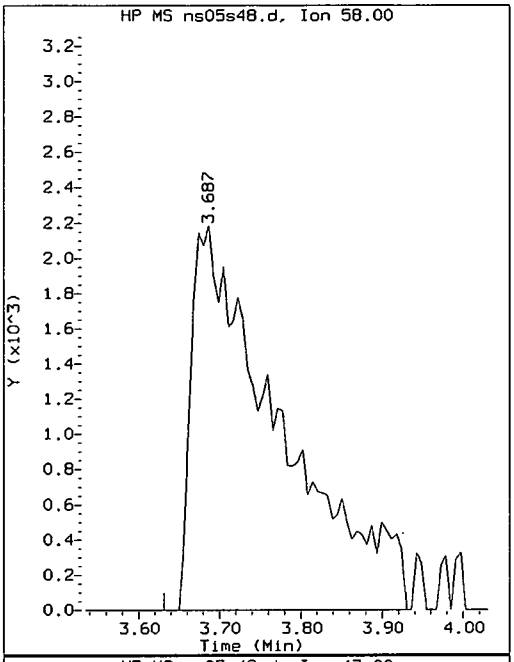
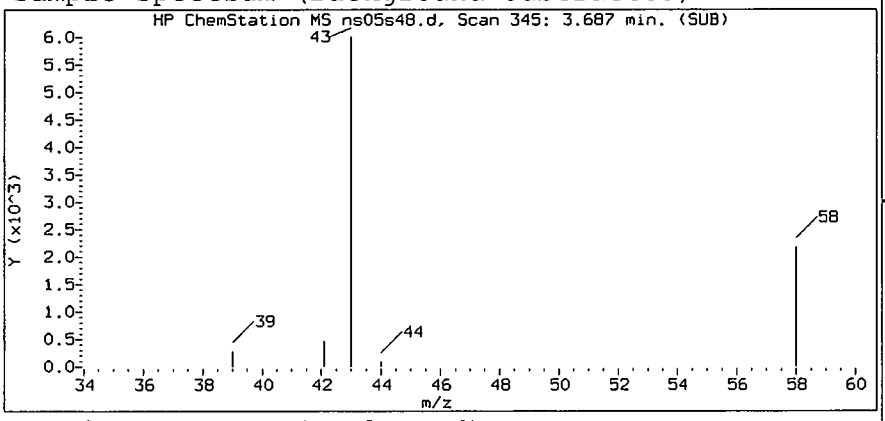
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

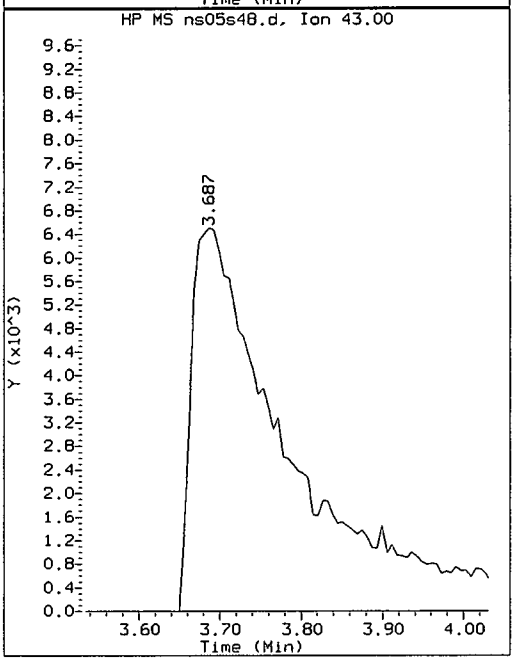
Reference Standard Spectrum for Acetone



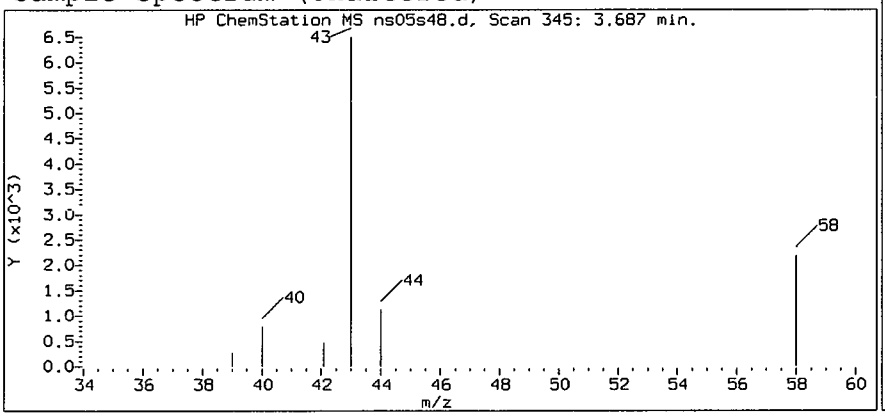


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Sample Name: PA19S Lab Sample ID: 6769199

Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 345
Retention Time (minutes)	: 3.687
Relative Retention Time	:-0.00887
Quant Ion	: 58.00
Area (flag)	: 16468M
On-Column Amount (ng)	: 14.4404

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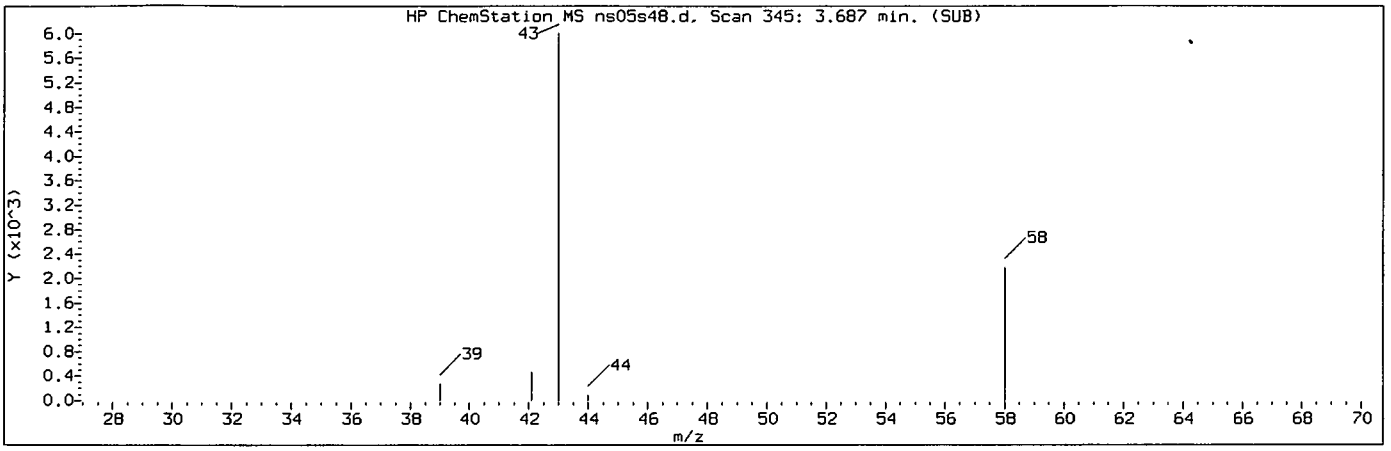
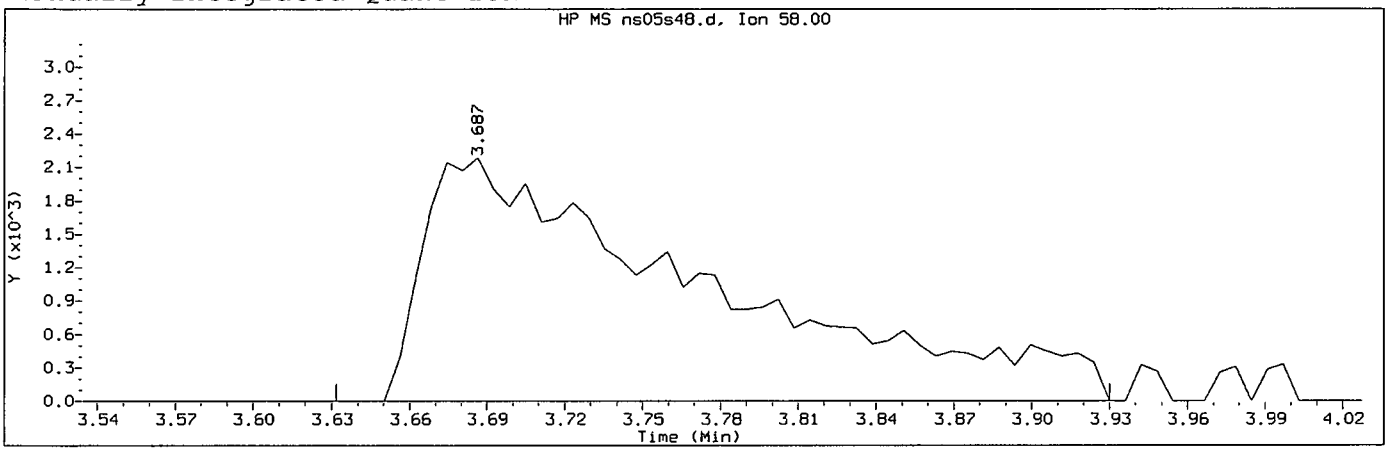
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Sample Name: PA19S Lab Sample ID: 6769199

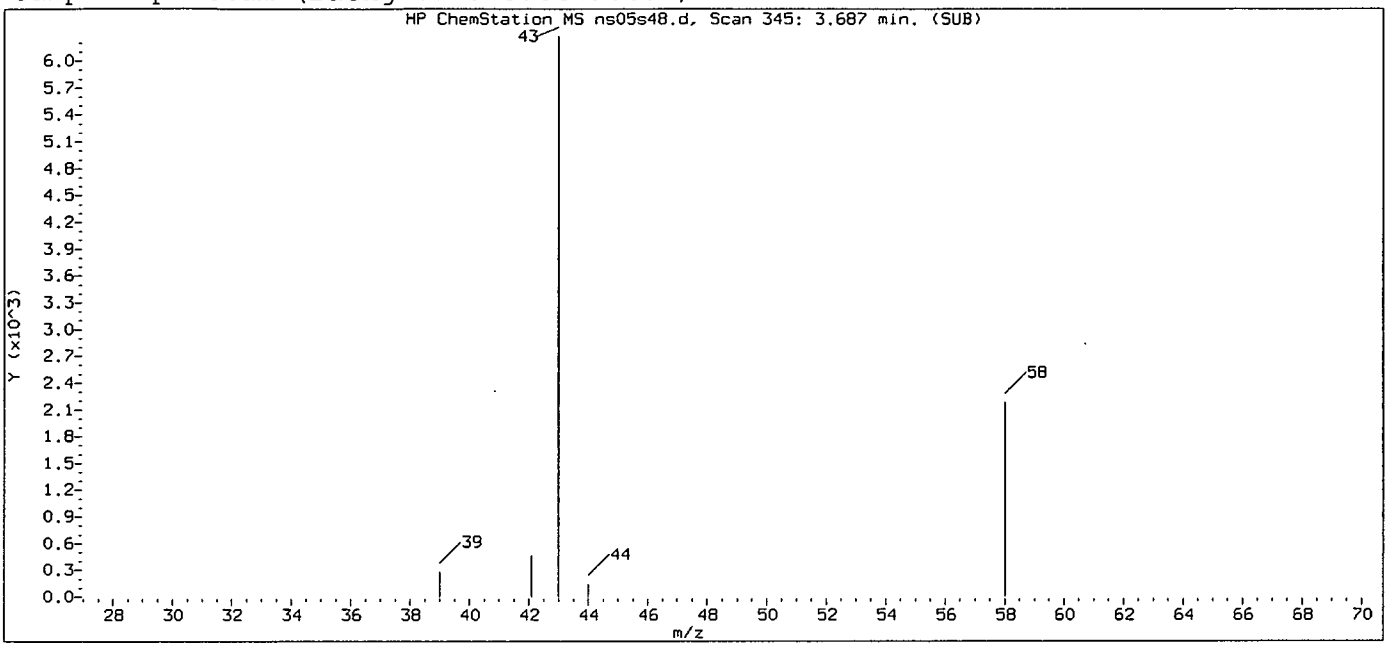
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 345		
Retention Time (minutes)	: 3.687		
Quant Ion	: 58.00		
Area (flag)	: 16468M		
On-Column Amount (ng)	: 14.4404		
Integration start scan	: 335	Integration stop scan:	384
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

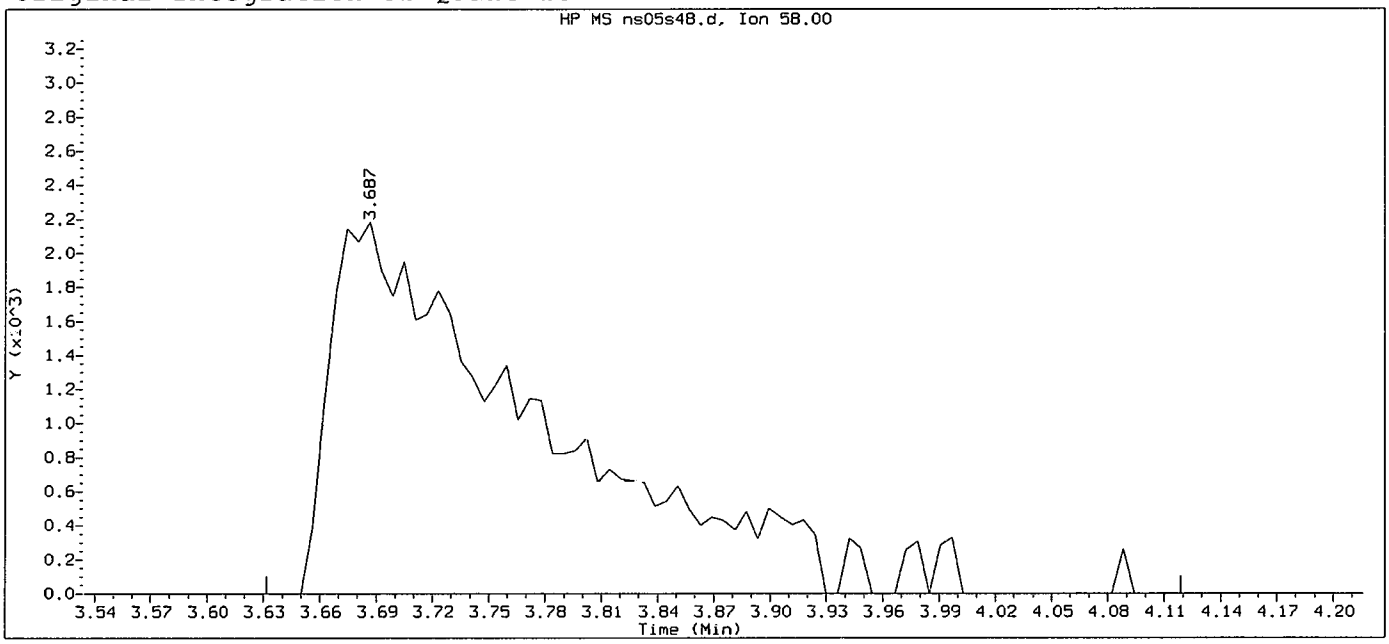
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

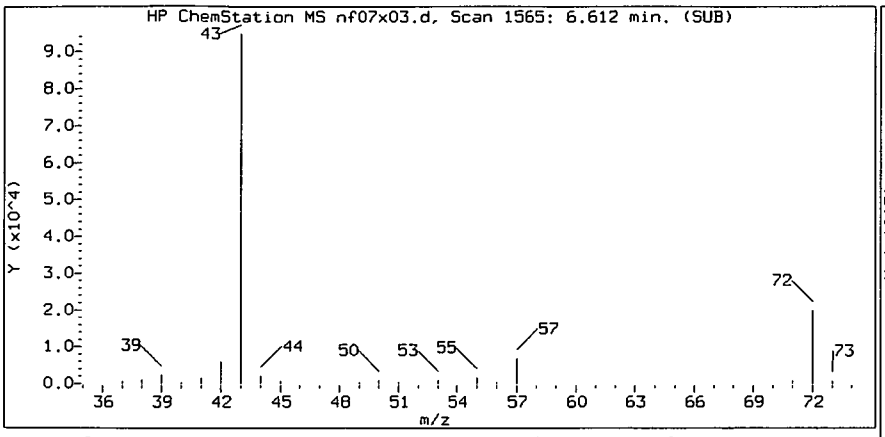
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 20:23 Automation

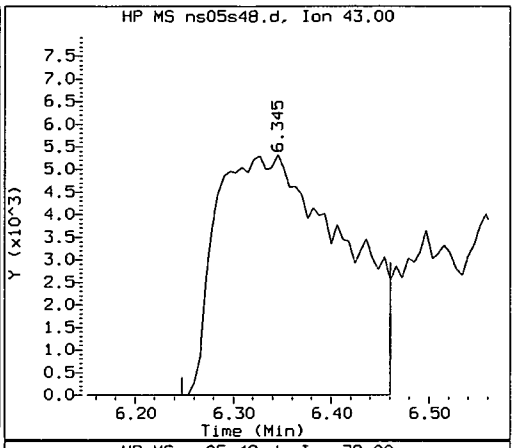
Sample Name: PA19S Lab Sample ID: 6769199

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 345		
Retention Time (minutes)	: 3.687		
Quant Ion	: 58.00		
Area	: 17210		
On-column Amount (ng)	: 15.0914		
Integration start scan	: 335	Integration stop scan:	415
Y at integration start	: 0	Y at integration end:	0

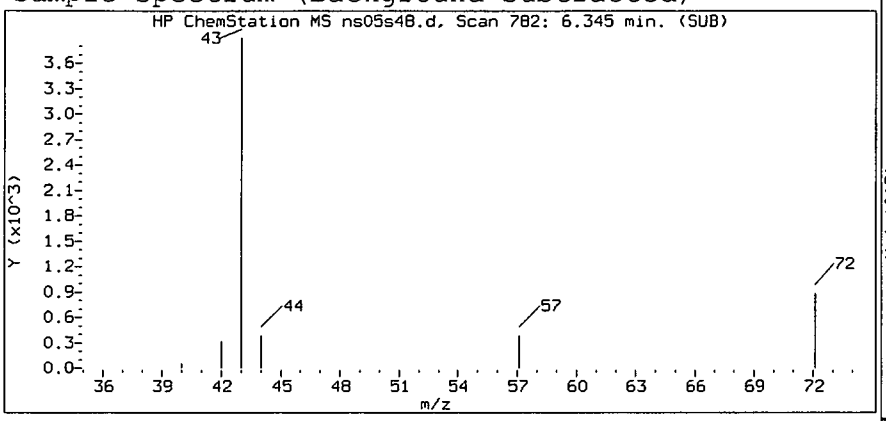
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

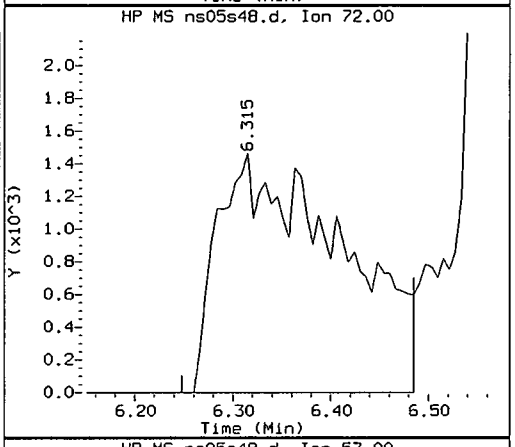
Reference Standard Spectrum for 2-Butanone



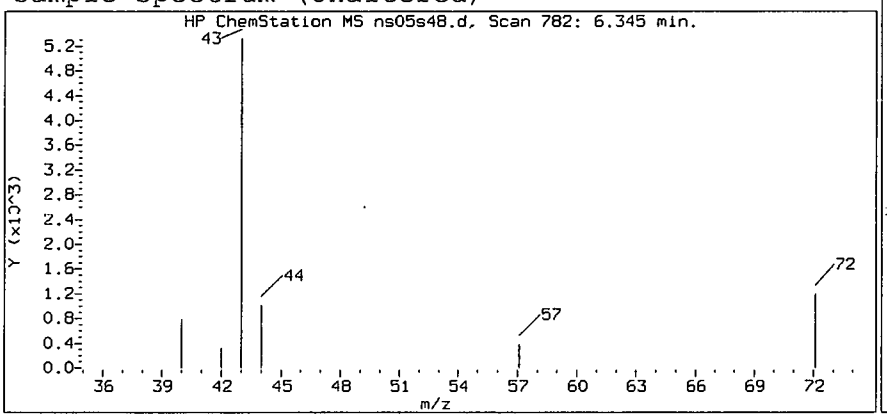


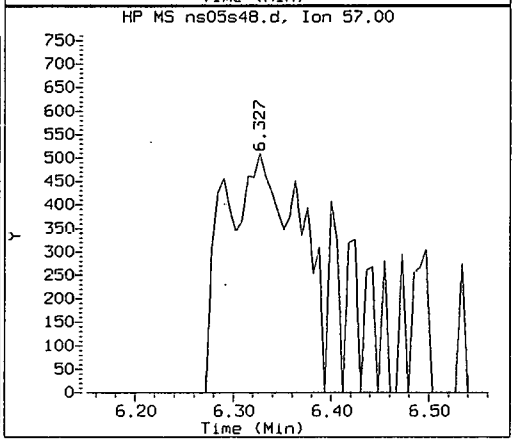
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

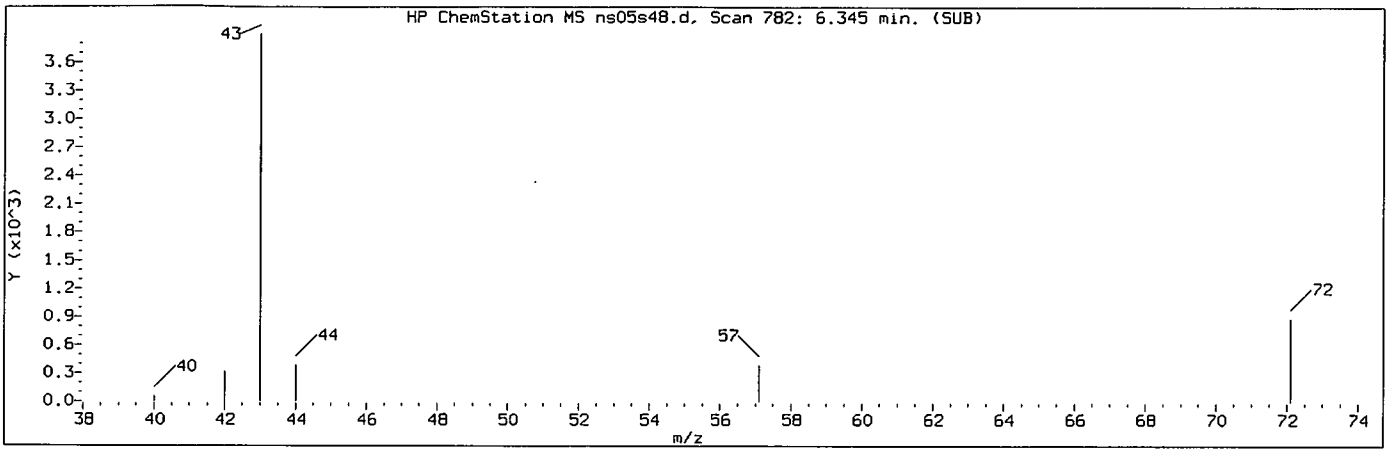
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Sample Name: PA19S Lab Sample ID: 6769199

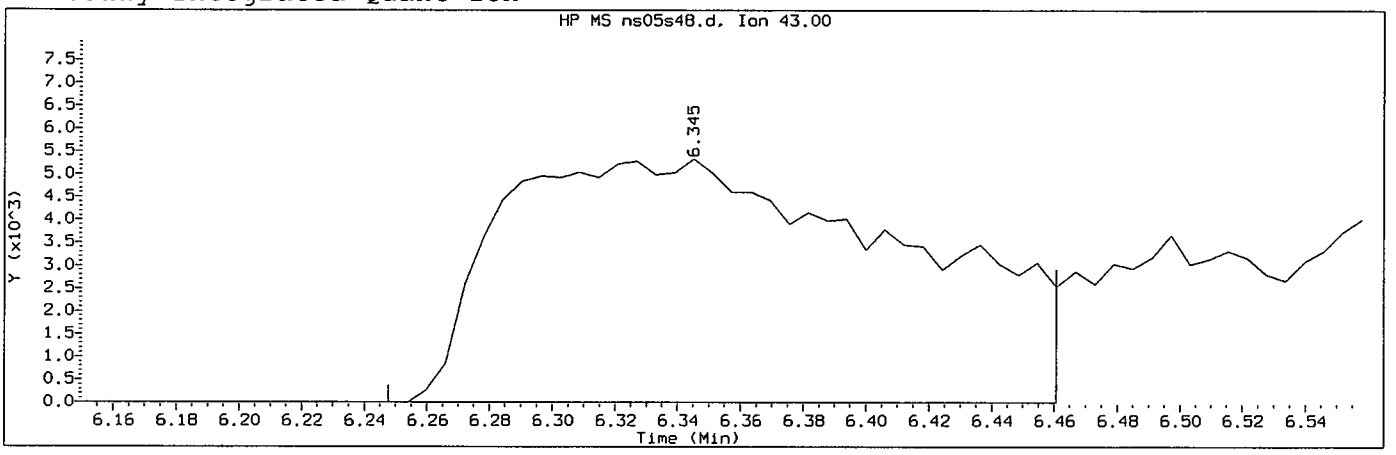
Compound Number : 42
Compound Name : 2-Butanone
Scan Number : 782
Retention Time (minutes): 6.345
Relative Retention Time :-0.02610
Quant Ion : 43.00
Area (flag) : 47741A
On-Column Amount (ng) : 8.8707

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Sample Name: PA19S Lab Sample ID: 6769199

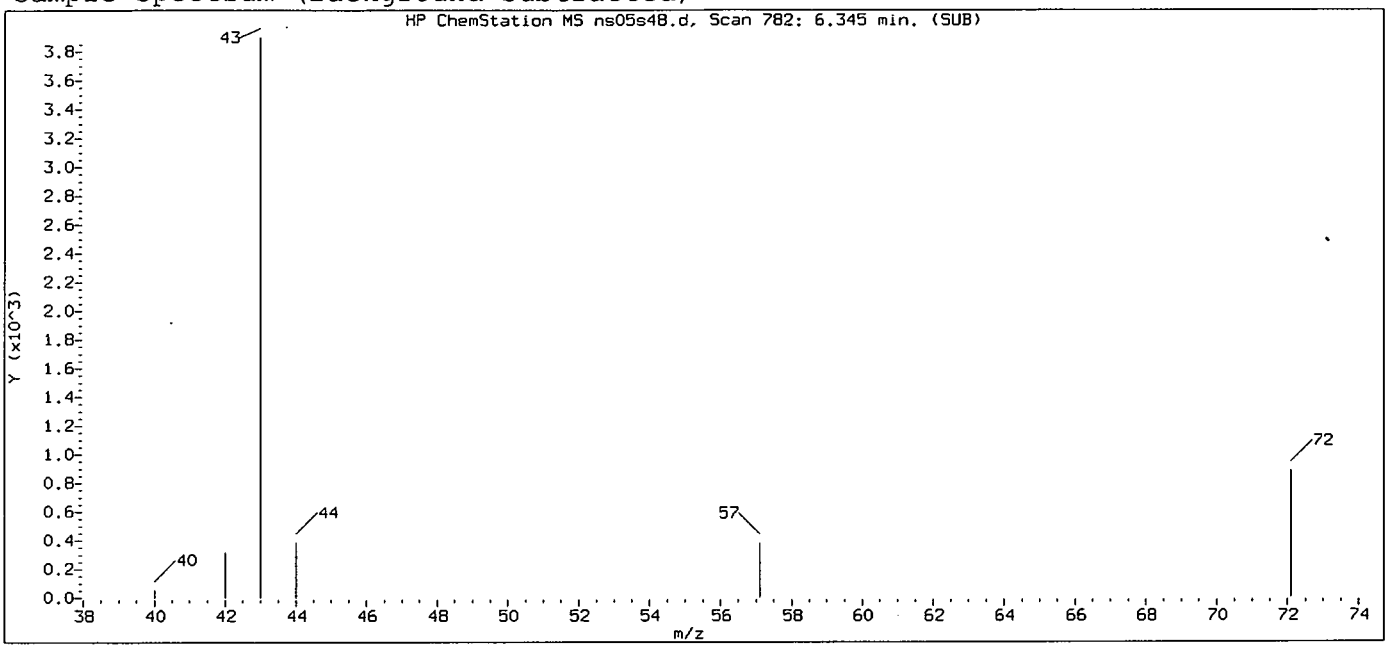
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 782		
Retention Time (minutes)	: 6.345		
Quant Ion	: 43.00		
Area (flag)	: 47741A		
On-Column Amount (ng)	: 8.8707		
Integration start scan	: 765	Integration stop scan:	800
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

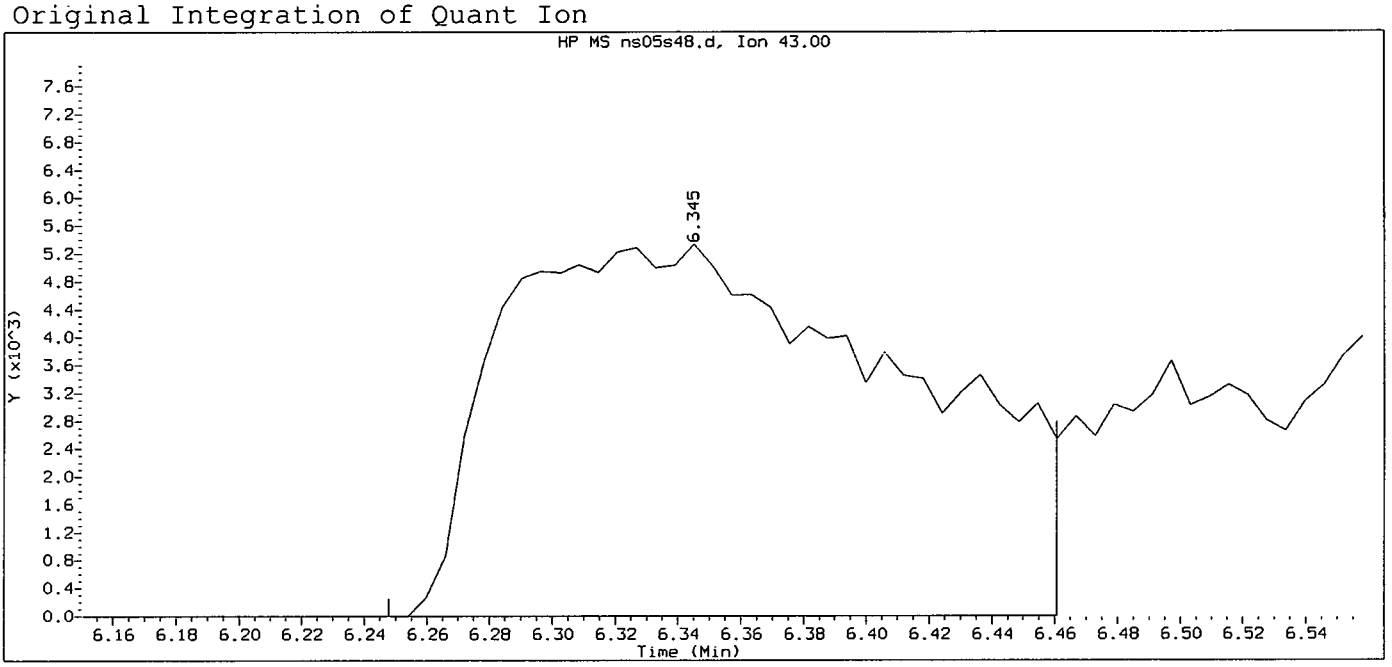
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

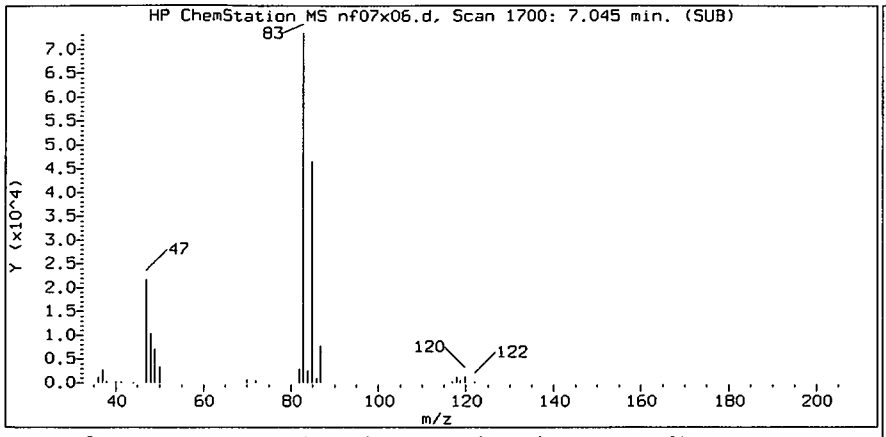
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 20:23 Automation

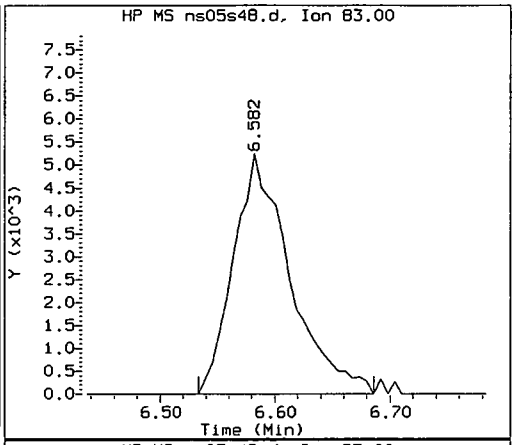
Sample Name: PA19S Lab Sample ID: 6769199

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 782		
Retention Time (minutes)	: 6.345		
Quant Ion	: 43.00		
Area	: 47741		
On-column Amount (ng)	: 8.8709		
Integration start scan	: 765	Integration stop scan:	800
Y at integration start	: 0	Y at integration end:	0

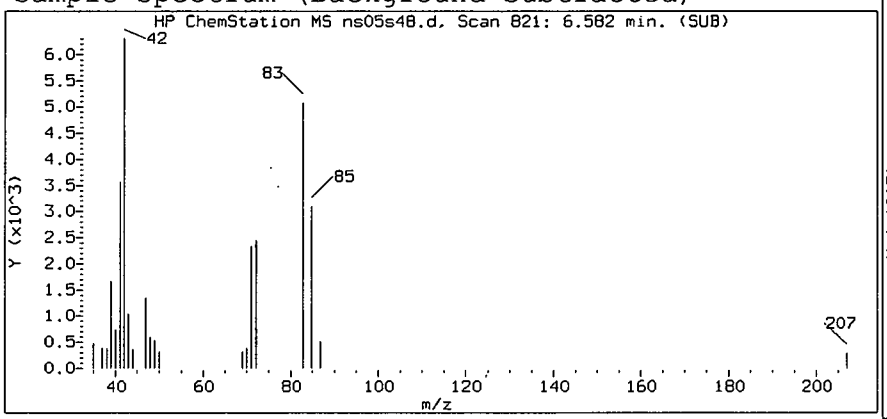
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

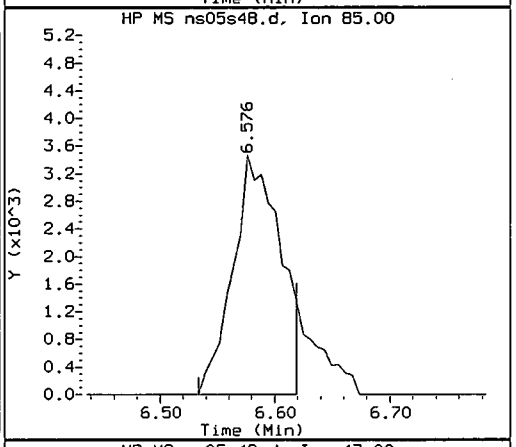
Reference Standard Spectrum for Chloroform



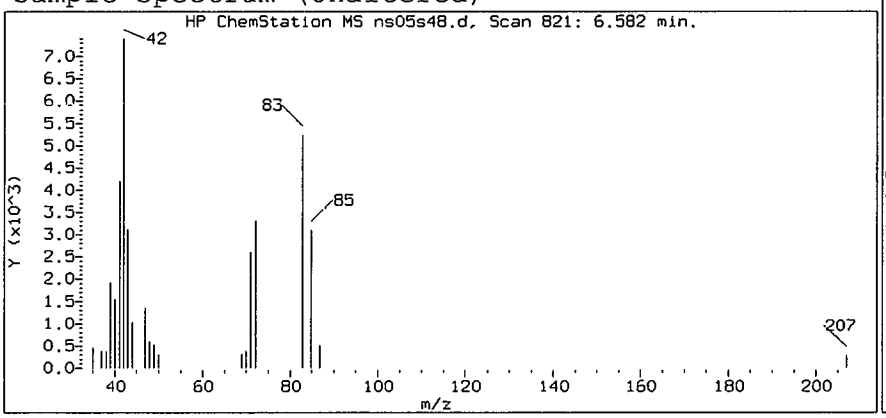


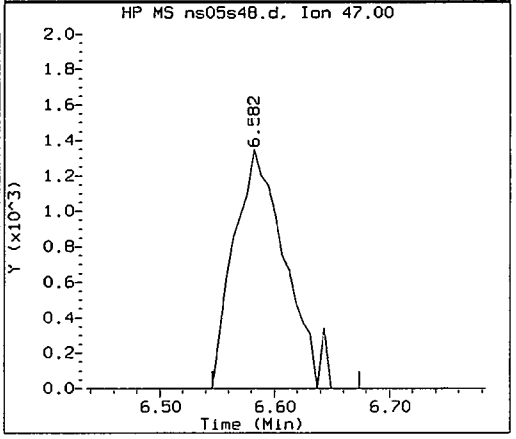
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

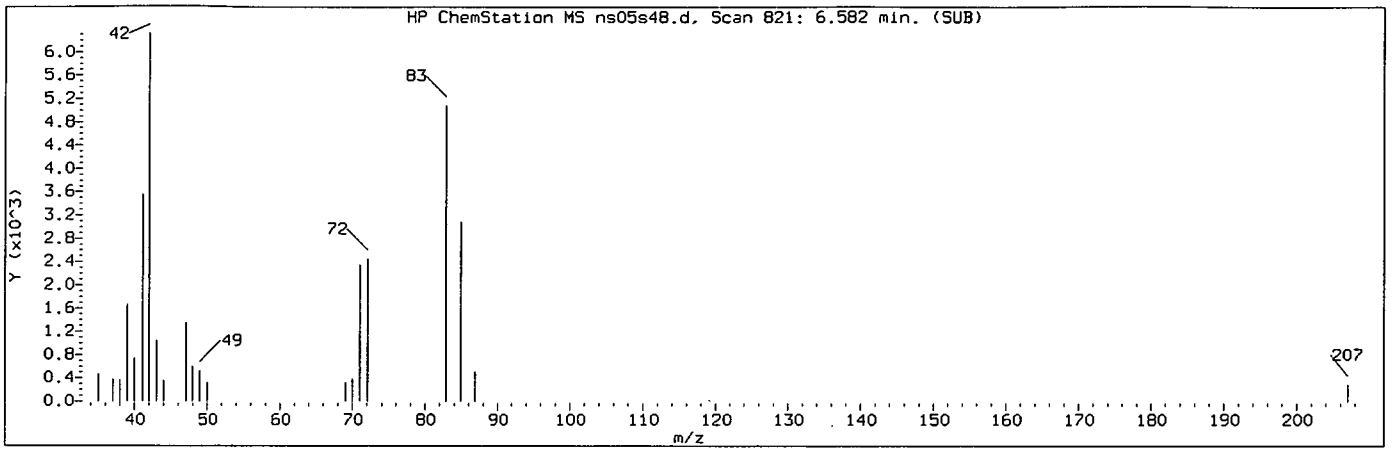
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Sample Name: PA19S Lab Sample ID: 6769199

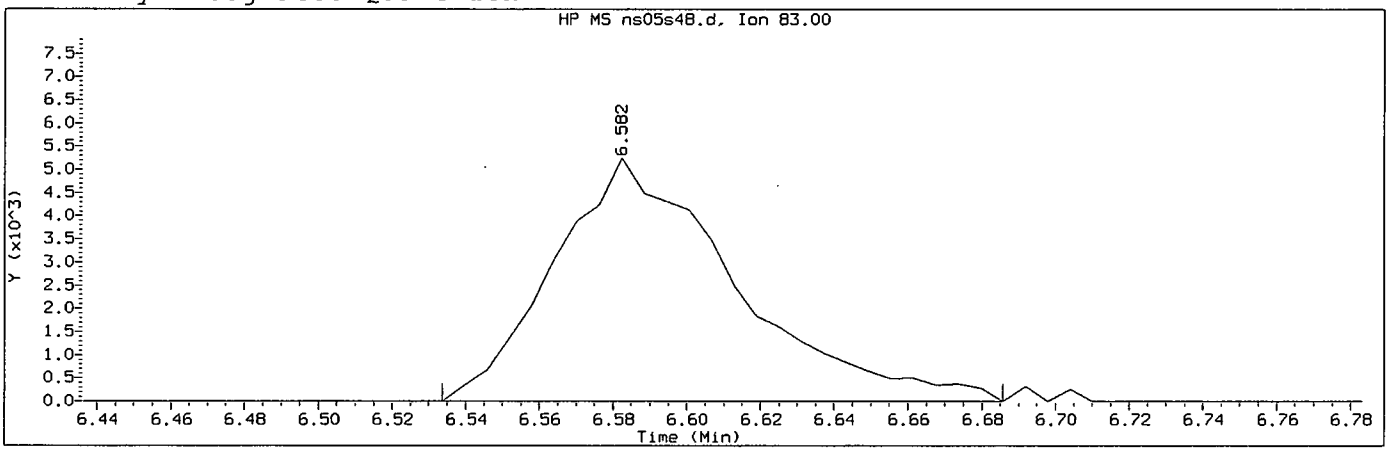
Compound Number	: 50
Compound Name	: Chloroform
Scan Number	: 821
Retention Time (minutes)	: 6.582
Relative Retention Time	:-0.00242
Quant Ion	: 83.00
Area (flag)	: 17929M
On-Column Amount (ng)	: 1.5645

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:33 sag03174

Sample Name: PA19S Lab Sample ID: 6769199

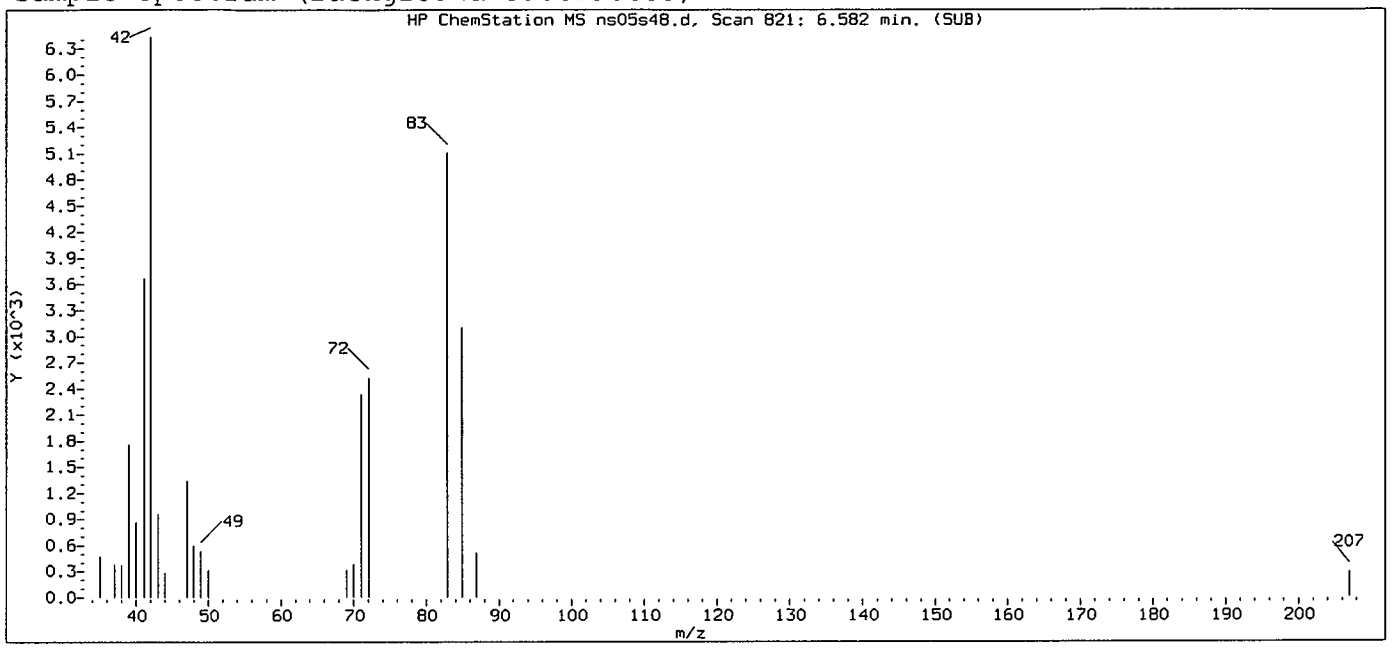
Compound Number	: 50		
Compound Name	: Chloroform		
Scan Number	: 821		
Retention Time (minutes)	: 6.582		
Quant Ion	: 83.00		
Area (flag)	: 17929M		
On-Column Amount (ng)	: 1.5645		
Integration start scan	: 812	Integration stop scan:	837
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

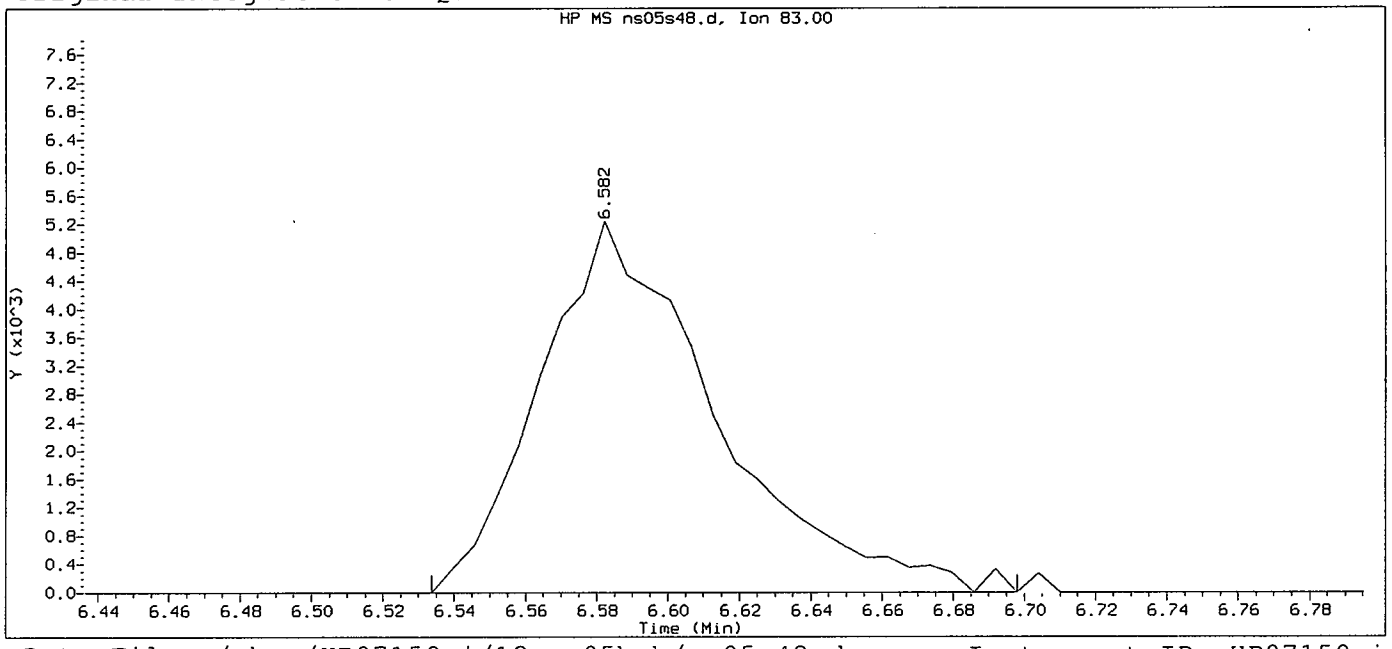
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s48.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:02 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 20:23 Automation

Sample Name: PA19S Lab Sample ID: 6769199

Compound Number	: 50		
Compound Name	: Chloroform		
Scan Number	: 821		
Retention Time (minutes)	: 6.582		
Quant Ion	: 83.00		
Area	: 18049		
On-column Amount (ng)	: 1.5750		
Integration start scan	: 812	Integration stop scan:	839
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT17

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769200

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s49.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	1	J
67-64-1	Acetone	6	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	6	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT17

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769200

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s49.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT17

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769200

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s49.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PAT17

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6769200

Data file: /chem/HP07159.i/12sep05b.b/ns05s49.d Injection date and time: **05-SEP-2012 20:26**
Data file Sample Info. Line: PAT17;6769200;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.259(-0.022)	439	65	315175 (-17)	250.00	
70) Fluorobenzene	7.715(-0.004)	1007	96	1367064 (-10)	50.00	
98) Chlorobenzene-d5	11.176(-0.010)	1576	117	978395 (-8)	50.00	
130) 1,4-Dichlorobenzene-d4	13.062(-0.034)	1886	152	552601 (-12)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.796(-0.001)	113	320441	52.438	105%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.252(0.000)	102	83881	51.321	103%		77 - 113
86) Toluene-d8	(2)	9.734(0.000)	98	1303450	47.617	95%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.186(-0.002)	95	473454	47.572	95%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
1) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
4) Vinyl Chloride	(1)			Not Detected					1	5
5) Bromomethane	(1)			Not Detected					1	5
7) Chloroethane	(1)			Not Detected					1	5
8) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.572(0.000)	96	5647	1.015	1.02		J	0.8	5
19) Acetone	(1)	3.718(-0.012)	58	7264M	6.332	6.33		J	6	20
25) Methylene Chloride	(1)			Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
42) 2-Butanone	(1)	6.346(-0.026)	43	31003A	5.726	5.73		J	3	10
44) 2,2-Dichloropropane	(1)			Not Detected					1	5
48) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)			Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)			Not Detected					1	5
59) Carbon Tetrachloride	(1)			Not Detected					1	5
65) Benzene	(1)			Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
76) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
81) Bromodichloromethane	(1)			Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
88) Toluene	(2)			Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

PAT17 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6769200

Data file: /chem/HP07159.i/12sep05b.b/ns05s49.d Injection date and time: **05-SEP-2012 20:26**
Data file Sample Info. Line: PAT17;6769200;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

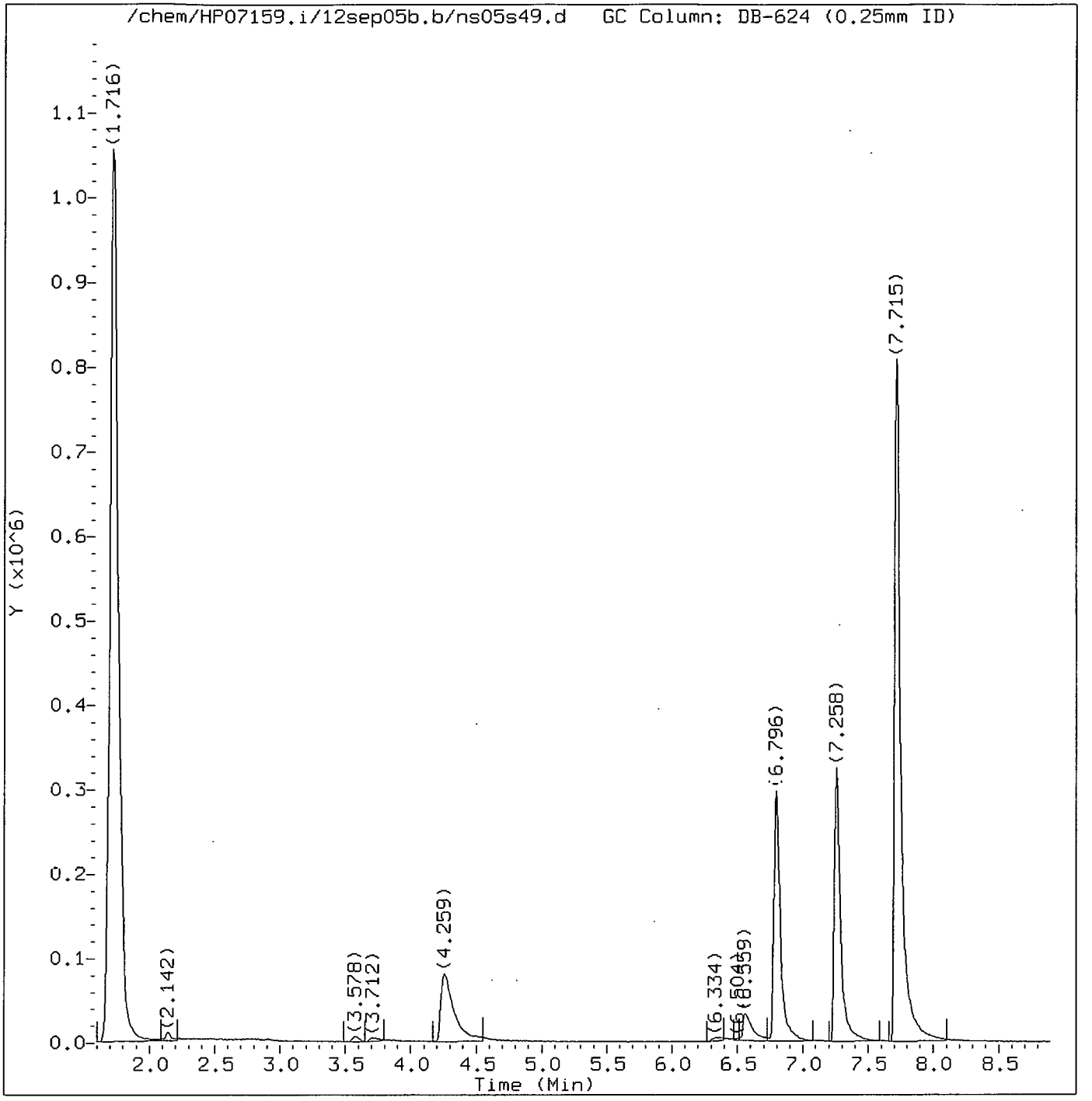
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

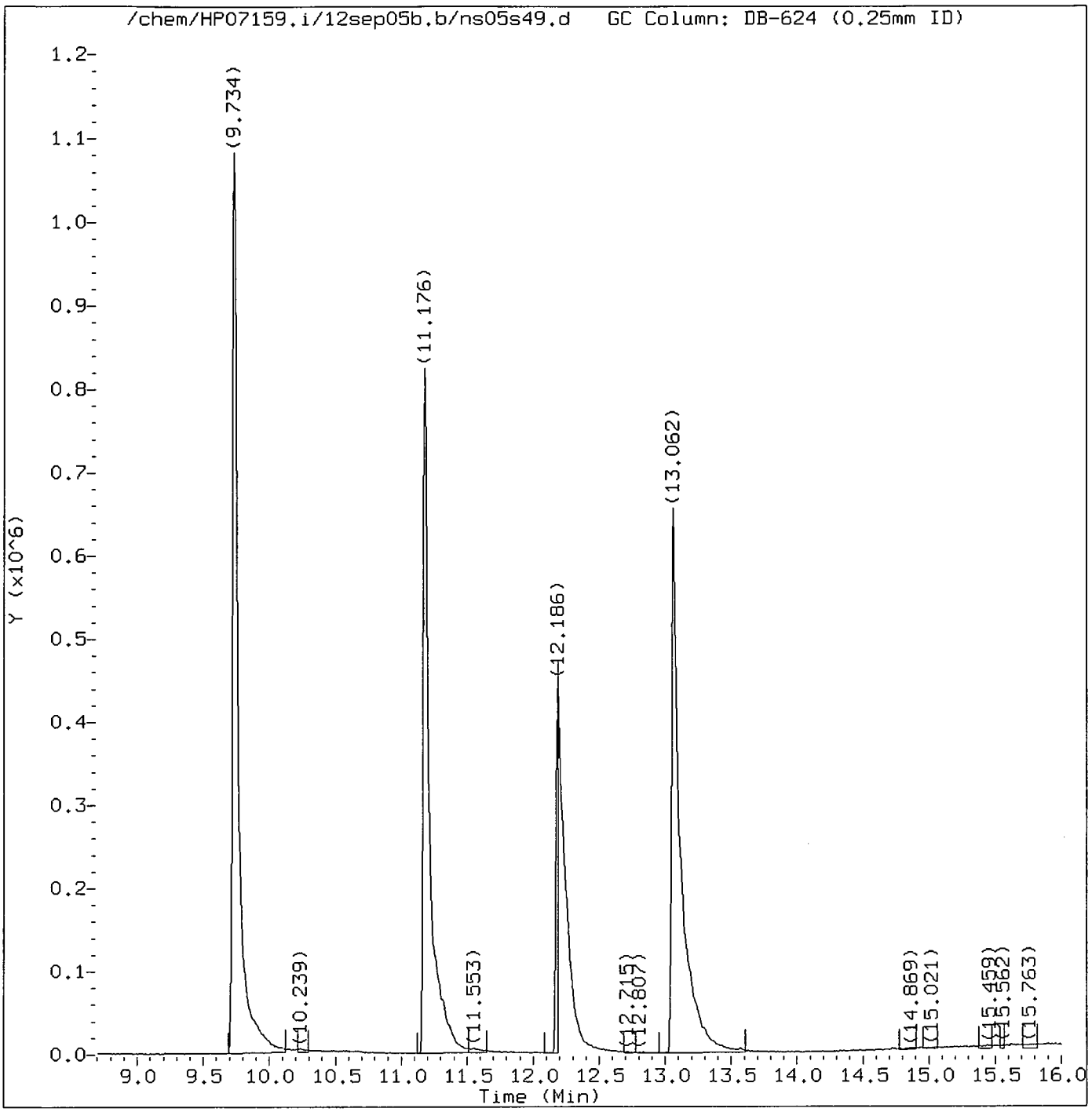
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s49.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:26 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PAT17 Lab Sample ID: 6769200

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s49.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:26 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PAT17 Lab Sample ID: 6769200

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s49.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:26 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

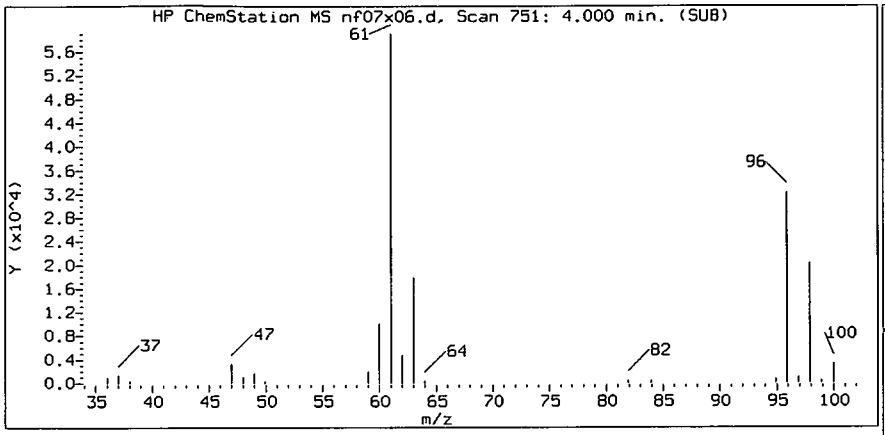
Sample Name: PAT17 Lab Sample ID: 6769200

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.572	96	5647	1.015
19) Acetone	(1)	3.718	58	7264M	6.332
26)*t-Butyl Alcohol-d10	(4)	4.259	65	315175	250.000
42) 2-Butanone	(1)	6.346	43	31003A	5.726
51)$Dibromofluoromethane	(1)	6.796	113	320441	52.438
62)$1,2-Dichloroethane-d4	(1)	7.252	102	83881	51.321
70)*Fluorobenzene	(1)	7.715	96	1367064	50.000
86)$Toluene-d8	(2)	9.734	98	1303450	47.617
98)*Chlorobenzene-d5	(2)	11.176	117	978395	50.000
114)$4-Bromofluorobenzene	(2)	12.186	95	473454	47.572
130)*1,4-Dichlorobenzene-d4	(3)	13.062	152	552601	50.000

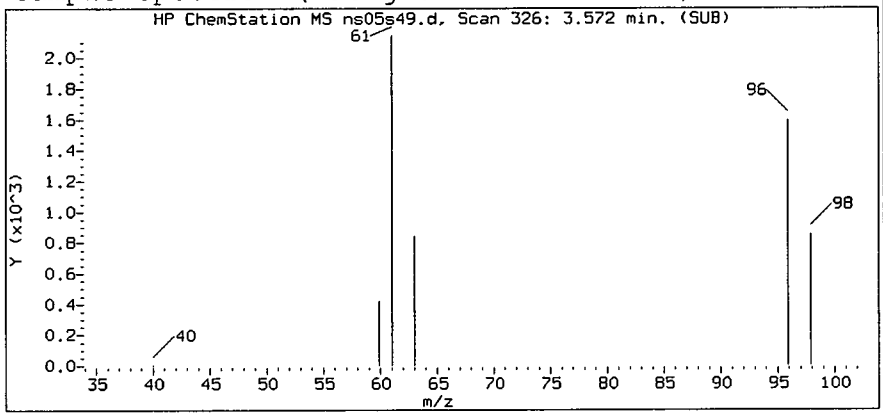
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

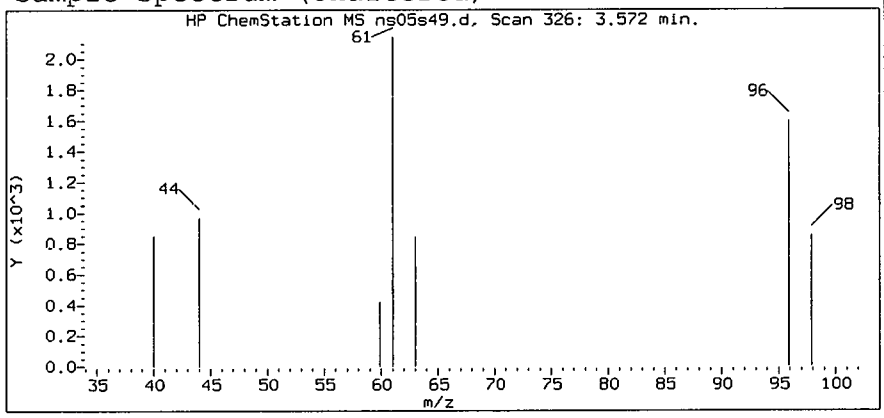
Reference Standard Spectrum for 1,1-Dichloroethene

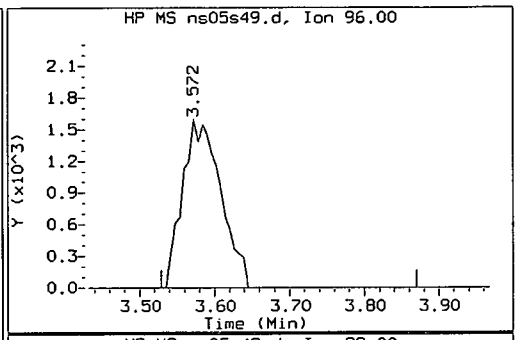


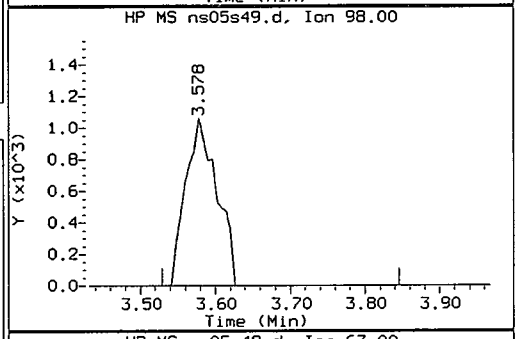
Sample Spectrum (Background Subtracted)

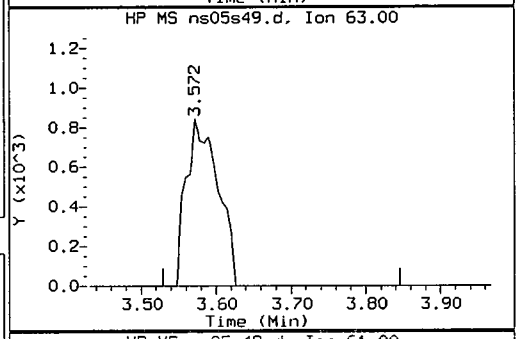


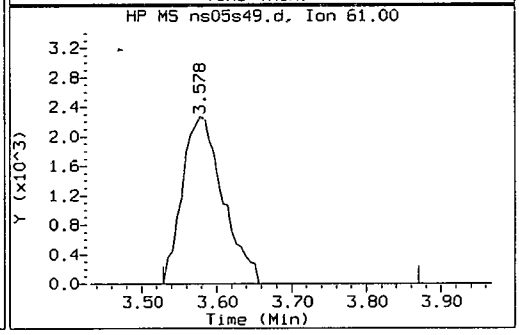
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s49.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:26 Analyst ID: ERS02237

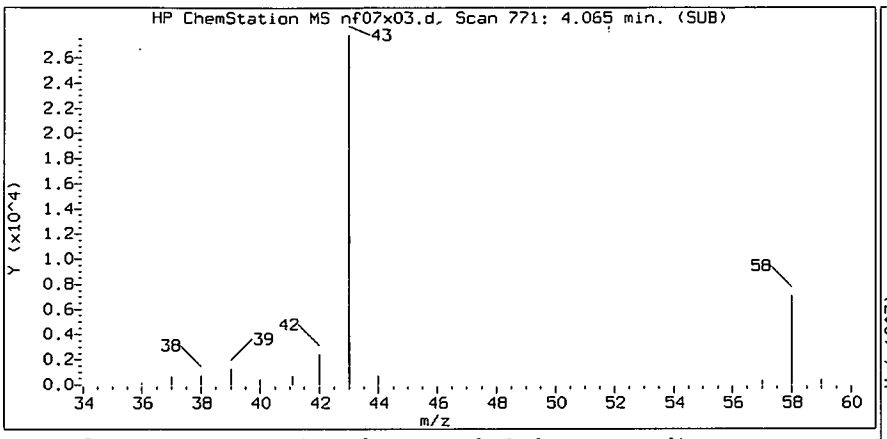
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PAT17 Lab Sample ID: 6769200

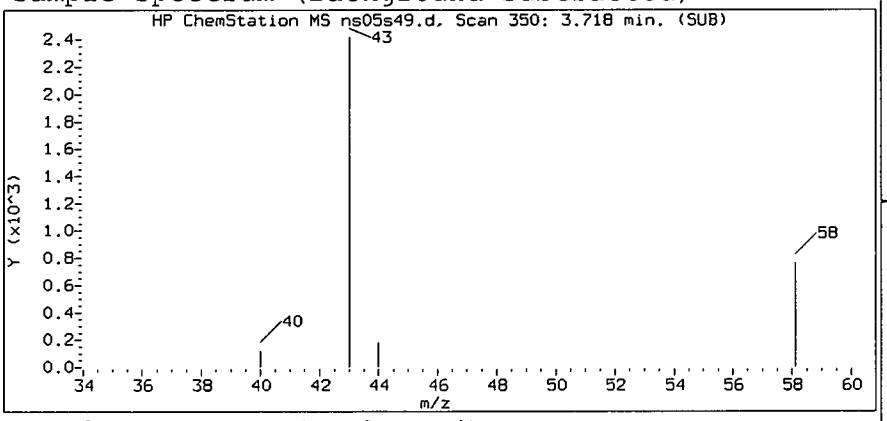
Compound Number	: 16
Compound Name	: 1,1-Dichloroethene
Scan Number	: 326
Retention Time (minutes)	: 3.572
Relative Retention Time	: 0.00054
Quant Ion	: 96.00
Area (flag)	: 5647
On-Column Amount (ng)	: 1.0154

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

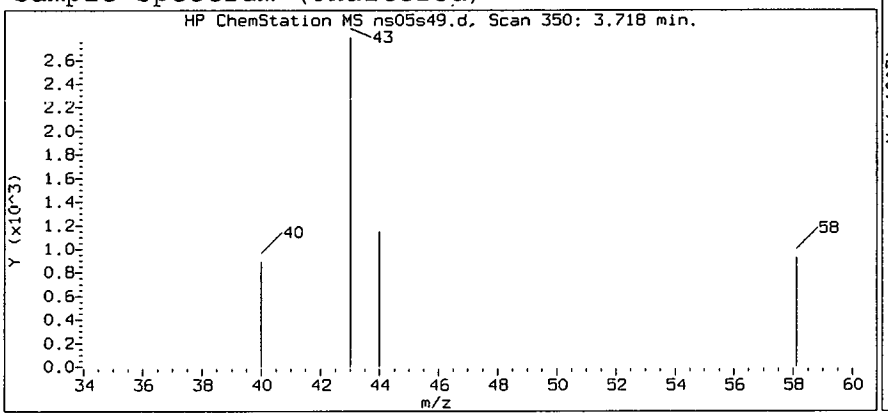
Reference Standard Spectrum for Acetone

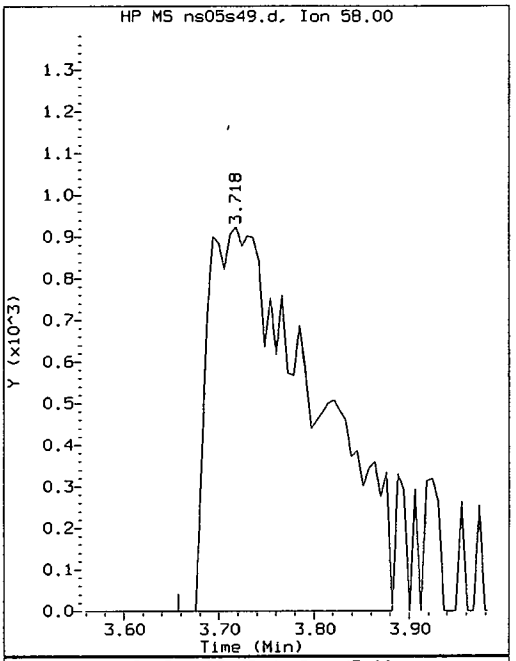


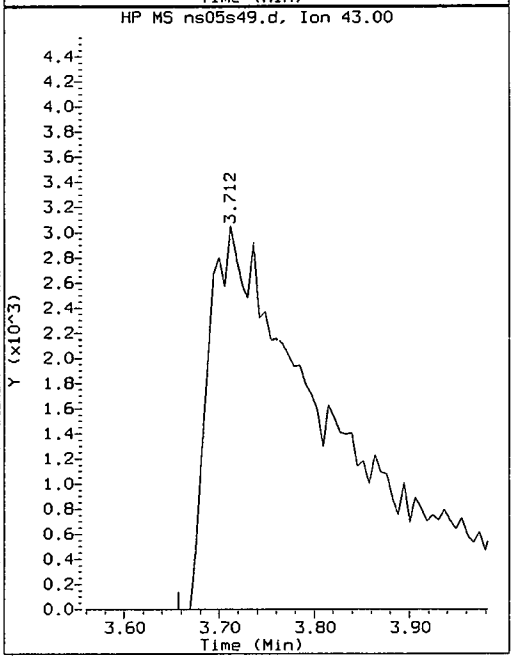
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem/HP07159.i/12sep05b.b/ns05s49.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:26 Analyst ID: ERS02237

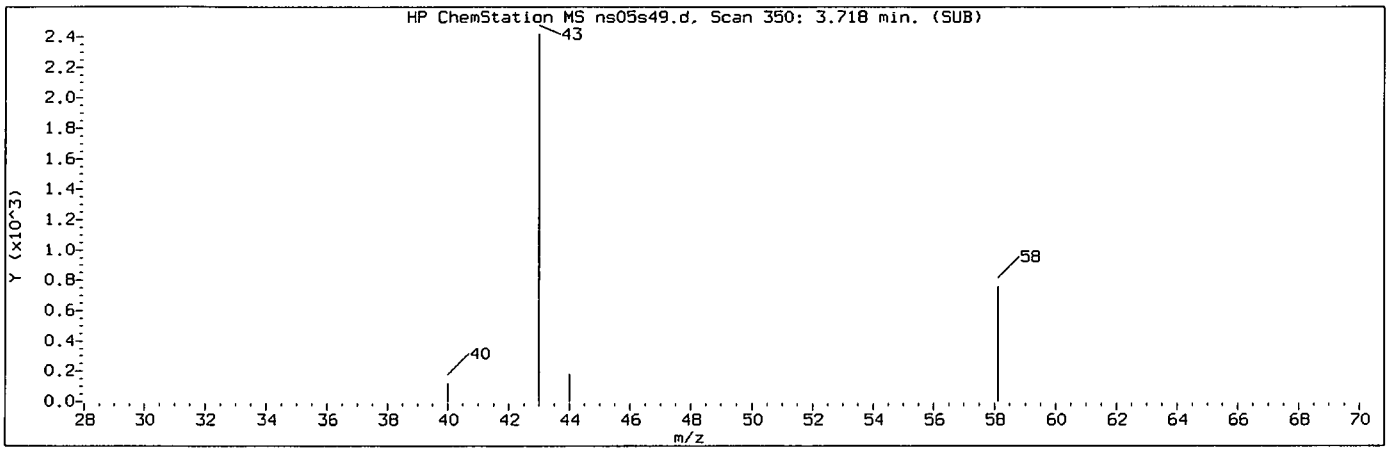
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PAT17 Lab Sample ID: 6769200

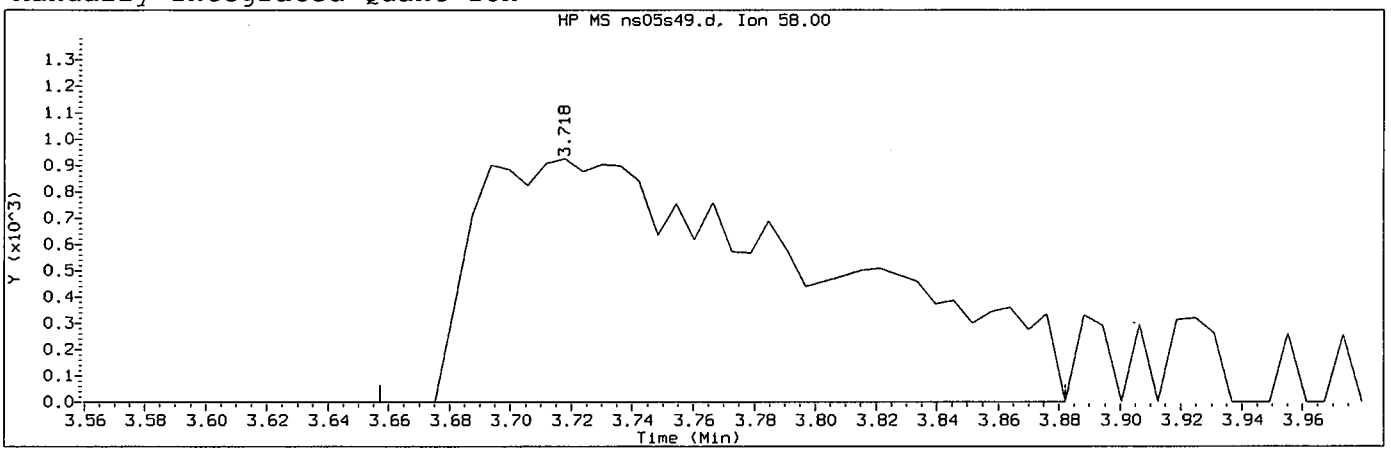
Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 350
Retention Time (minutes)	: 3.718
Relative Retention Time	:-0.01287
Quant Ion	: 58.00
Area (flag)	: 7264M
On-Column Amount (ng)	: 6.3317

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s49.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:26 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PAT17 Lab Sample ID: 6769200

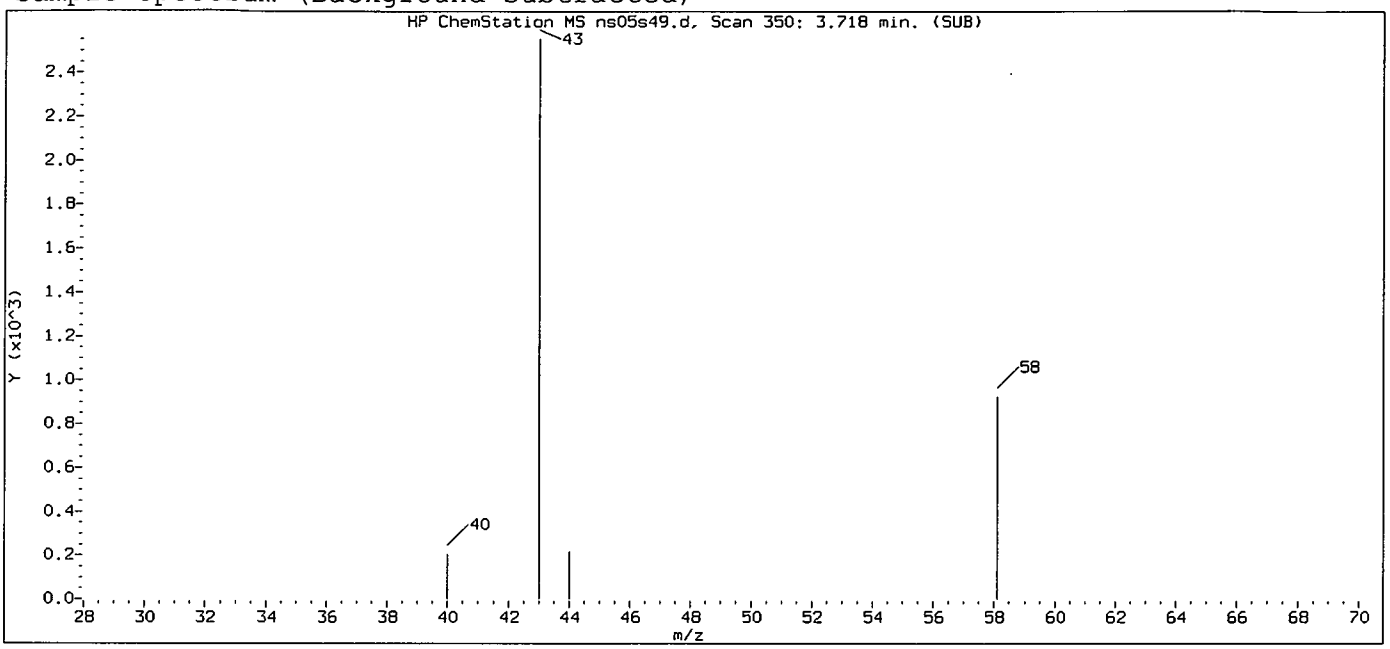
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 350		
Retention Time (minutes)	: 3.718		
Quant Ion	: 58.00		
Area (flag)	: 7264M		
On-Column Amount (ng)	: 6.3317		
Integration start scan	: 339	Integration stop scan:	376
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

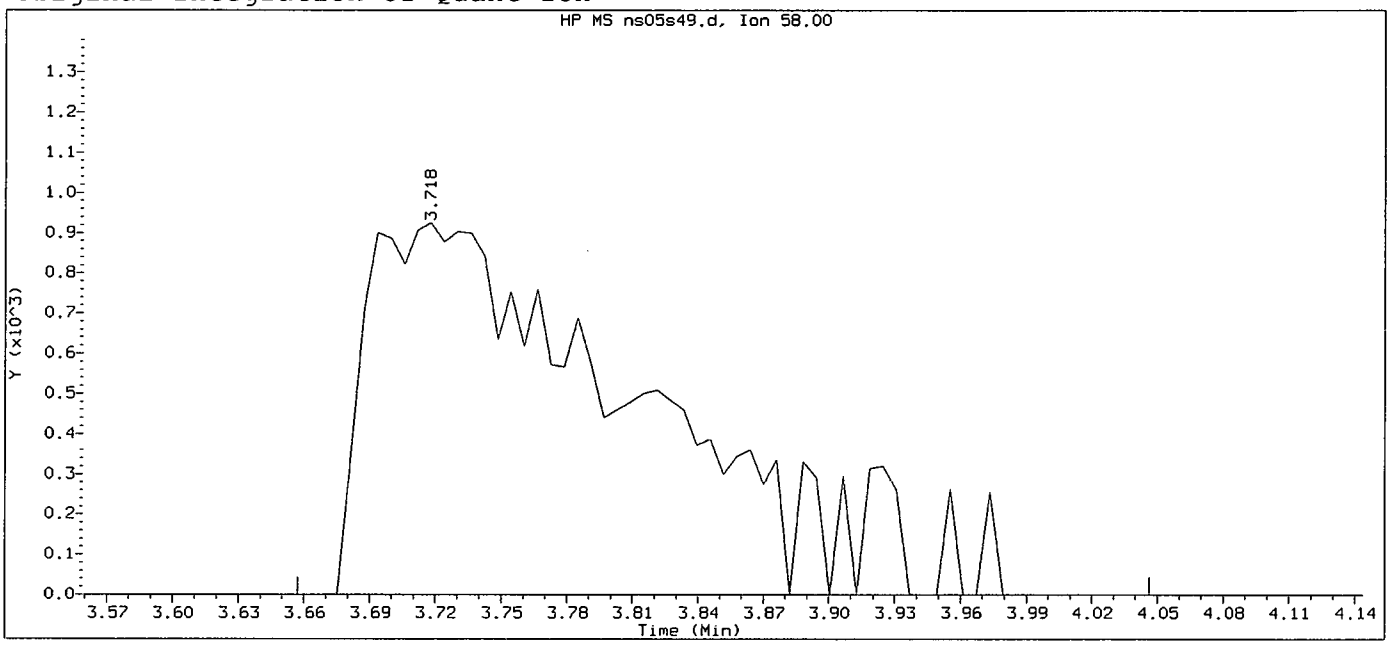
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s49.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:26 Analyst ID: ERS02237

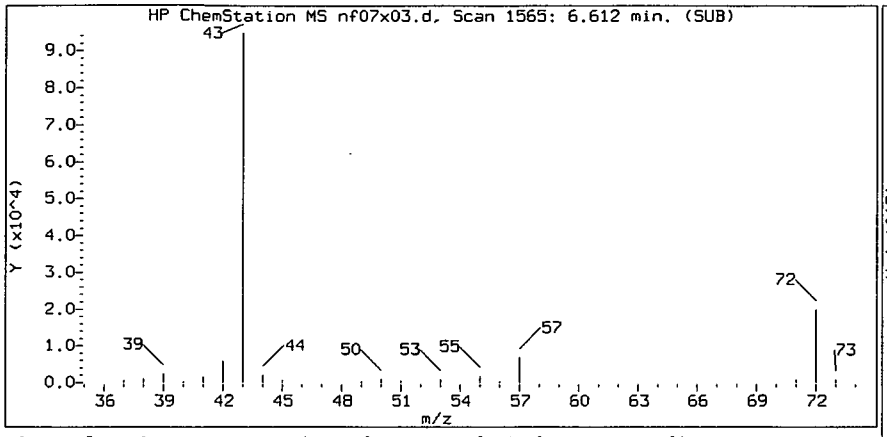
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 20:46 Automation

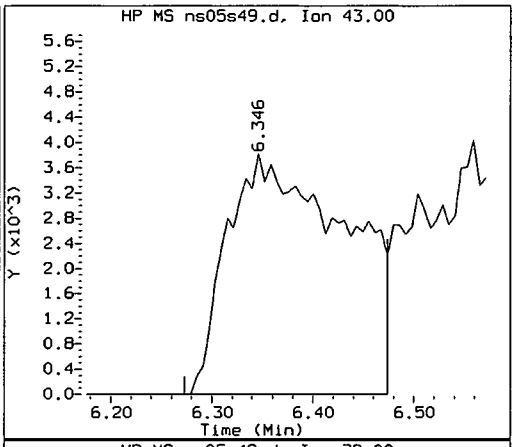
Sample Name: PAT17 Lab Sample ID: 6769200

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 350		
Retention Time (minutes)	: 3.718		
Quant Ion	: 58.00		
Area	: 8115		
On-column Amount (ng)	: 7.0739		
Integration start scan	: 339	Integration stop scan:	403
Y at integration start	: 0	Y at integration end:	0

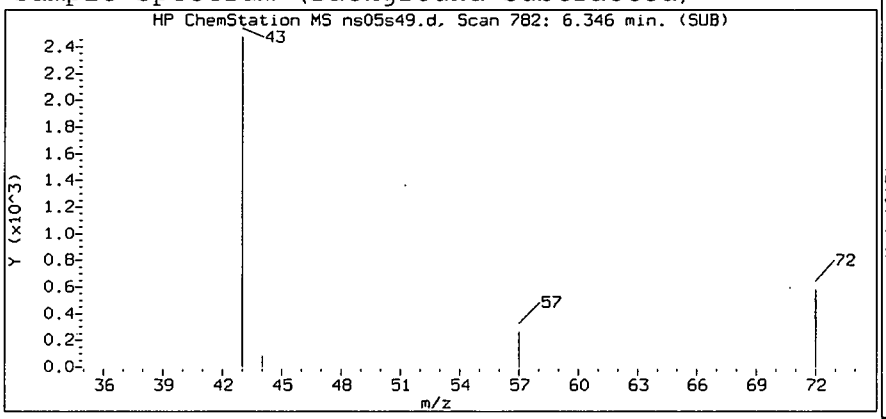
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

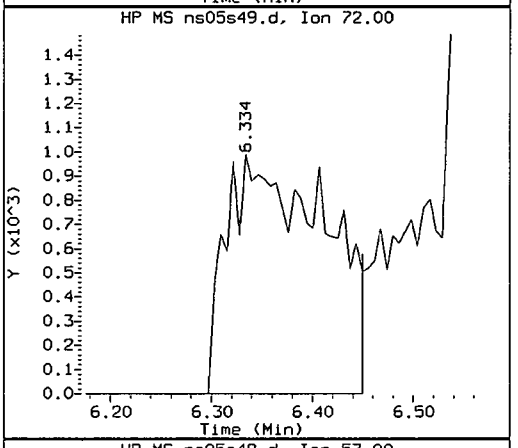
Reference Standard Spectrum for 2-Butanone



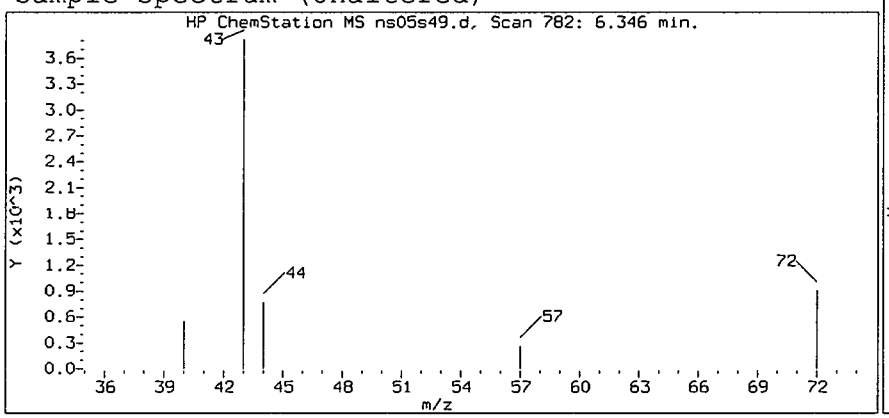


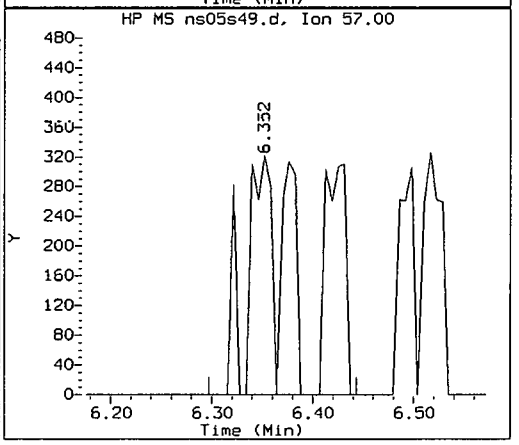
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s49.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:26 Analyst ID: ERS02237

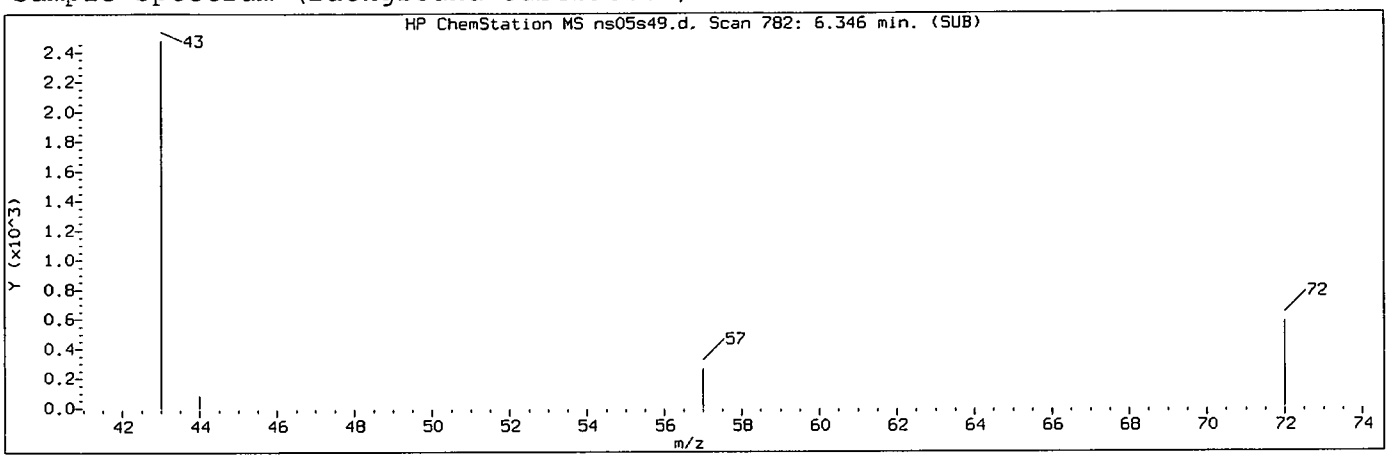
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PAT17 Lab Sample ID: 6769200

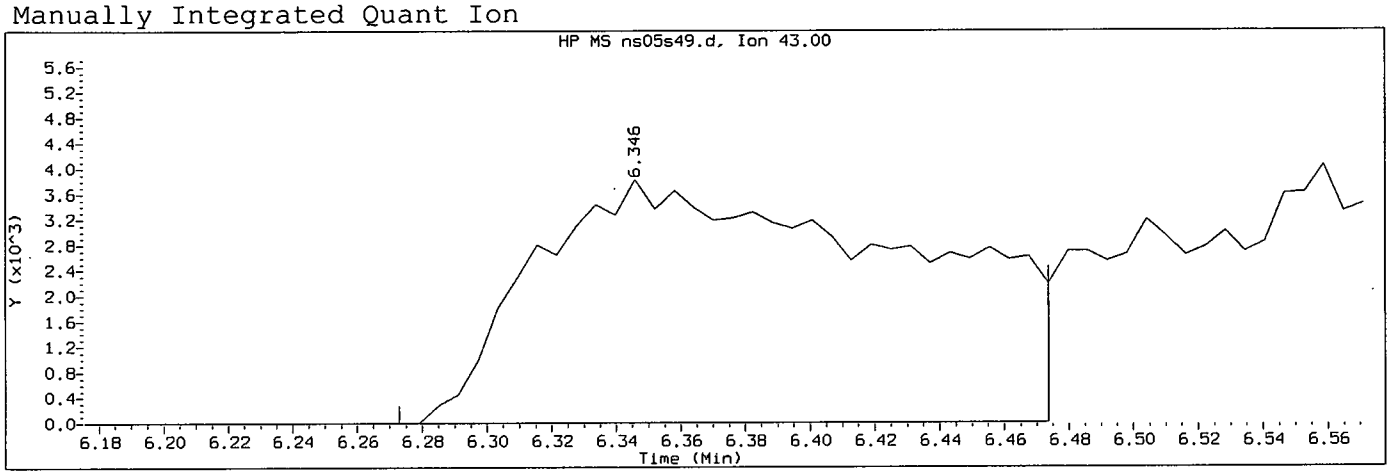
Compound Number	: 42
Compound Name	: 2-Butanone
Scan Number	: 782
Retention Time (minutes)	: 6.346
Relative Retention Time	:-0.02612
Quant Ion	: 43.00
Area (flag)	: 31003A
On-Column Amount (ng)	: 5.7263

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s49.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:26 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PAT17 Lab Sample ID: 6769200

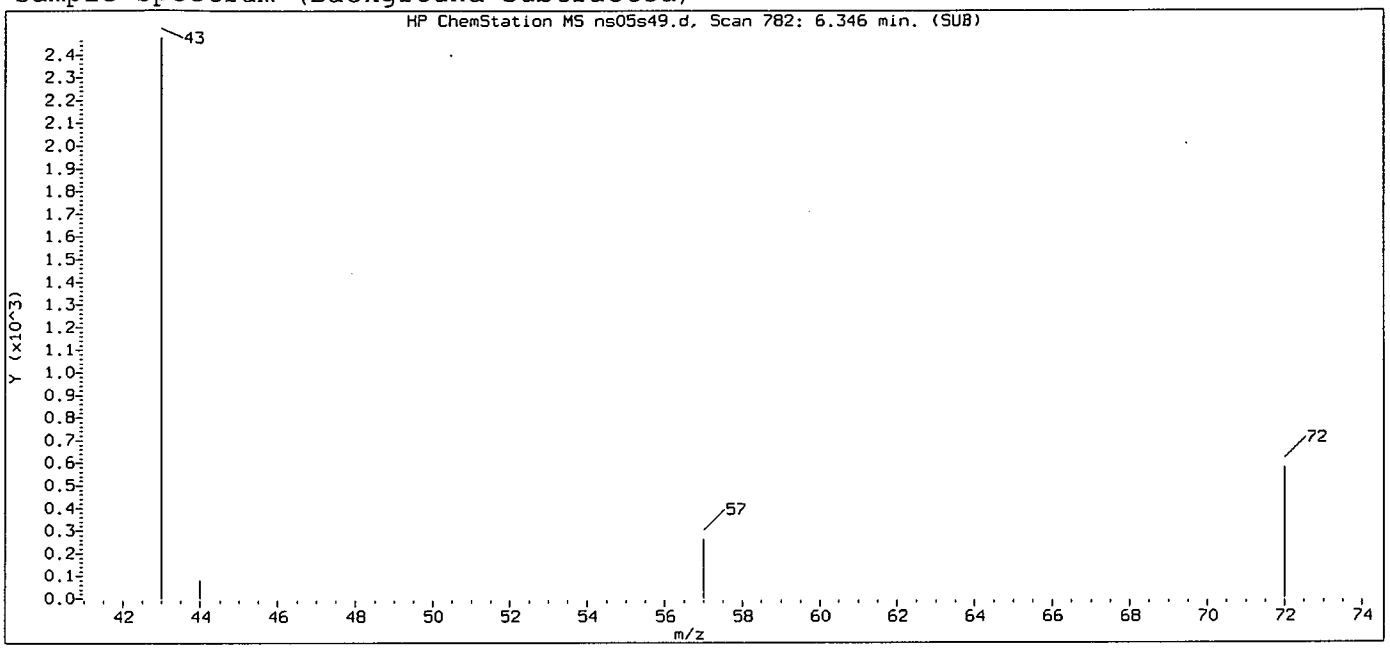
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 782		
Retention Time (minutes)	: 6.346		
Quant Ion	: 43.00		
Area (flag)	: 31003A		
On-Column Amount (ng)	: 5.7263		
Integration start scan	: 769	Integration stop scan:	802
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

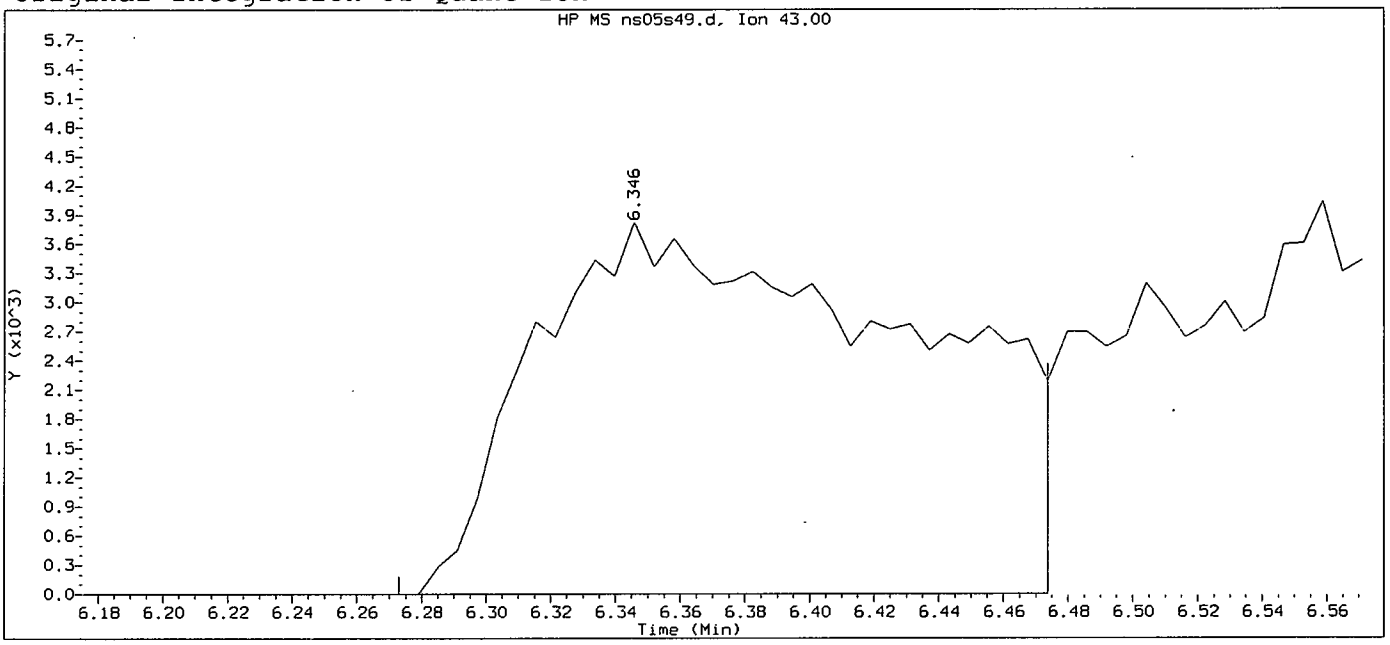
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s49.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:26 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 20:46 Automation

Sample Name: PAT17 Lab Sample ID: 6769200

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 782		
Retention Time (minutes)	: 6.346		
Quant Ion	: 43.00		
Area	: 31003		
On-column Amount (ng)	: 5.7264		
Integration start scan	: 769	Integration stop scan:	802
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA18S

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769201

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s50.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	14	
67-64-1	Acetone	12	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	8	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	3	J
71-55-6	1,1,1-Trichloroethane	1	J
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA18S

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769201

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s50.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA18S

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769201

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s50.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

FORM I VOA

PA18S

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769201

Data file: /chem/HP07159.i/12sep05b.b/ns05s50.d
Injection date and time: **05-SEP-2012 20:49**
Data file Sample Info. Line: PA18S;6769201;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.251 (-0.014)	438	65	303157 (-20)	250.00	
70) Fluorobenzene	7.719 (-0.008)	1008	96	1341635 (-11)	50.00	
98) Chlorobenzene-d5	11.180 (-0.014)	1577	117	970602 (-9)	50.00	
130) 1,4-Dichlorobenzene-d4	13.066 (-0.038)	1887	152	545082 (-13)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.800 (-0.001)	113	312570	52.120	104%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.257 (0.000)	102	82492	51.428	103%		77 - 113
86) Toluene-d8	(2)	9.733 (0.000)	98	1275596	46.973	94%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.184 (-0.001)	95	463114	46.907	94%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
4) Vinyl Chloride	(1)			Not Detected					1	5
5) Bromomethane	(1)			Not Detected					1	5
7) Chloroethane	(1)			Not Detected					1	5
8) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.582 (-0.000)	96	78506	14.384	14.38			0.8	5
19) Acetone	(1)	3.698 (-0.010)	58	13720M	12.186	12.19		J	6	20
25) Methylene Chloride	(1)			Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
42) 2-Butanone	(1)	6.338 (-0.024)	43	43485A	8.184	8.18		J	3	10
44) 2,2-Dichloropropane	(1)			Not Detected					1	5
48) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)	6.575 (-0.000)	83	33512	2.962	2.96		J	0.8	5
53) 1,1,1-Trichloroethane	(1)	6.831 (-0.000)	97	10142M	1.090	1.09		J	0.8	5
58) 1,1-Dichloropropene	(1)			Not Detected					1	5
59) Carbon Tetrachloride	(1)			Not Detected					1	5
65) Benzene	(1)			Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
76) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
81) Bromodichloromethane	(1)			Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
88) Toluene	(2)			Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

PA18S

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769201

Data file: /chem/HP07159.i/12sep05b.b/ns05s50.d Injection date and time: **05-SEP-2012 20:49**
Data file Sample Info. Line: PA18S;6769201;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

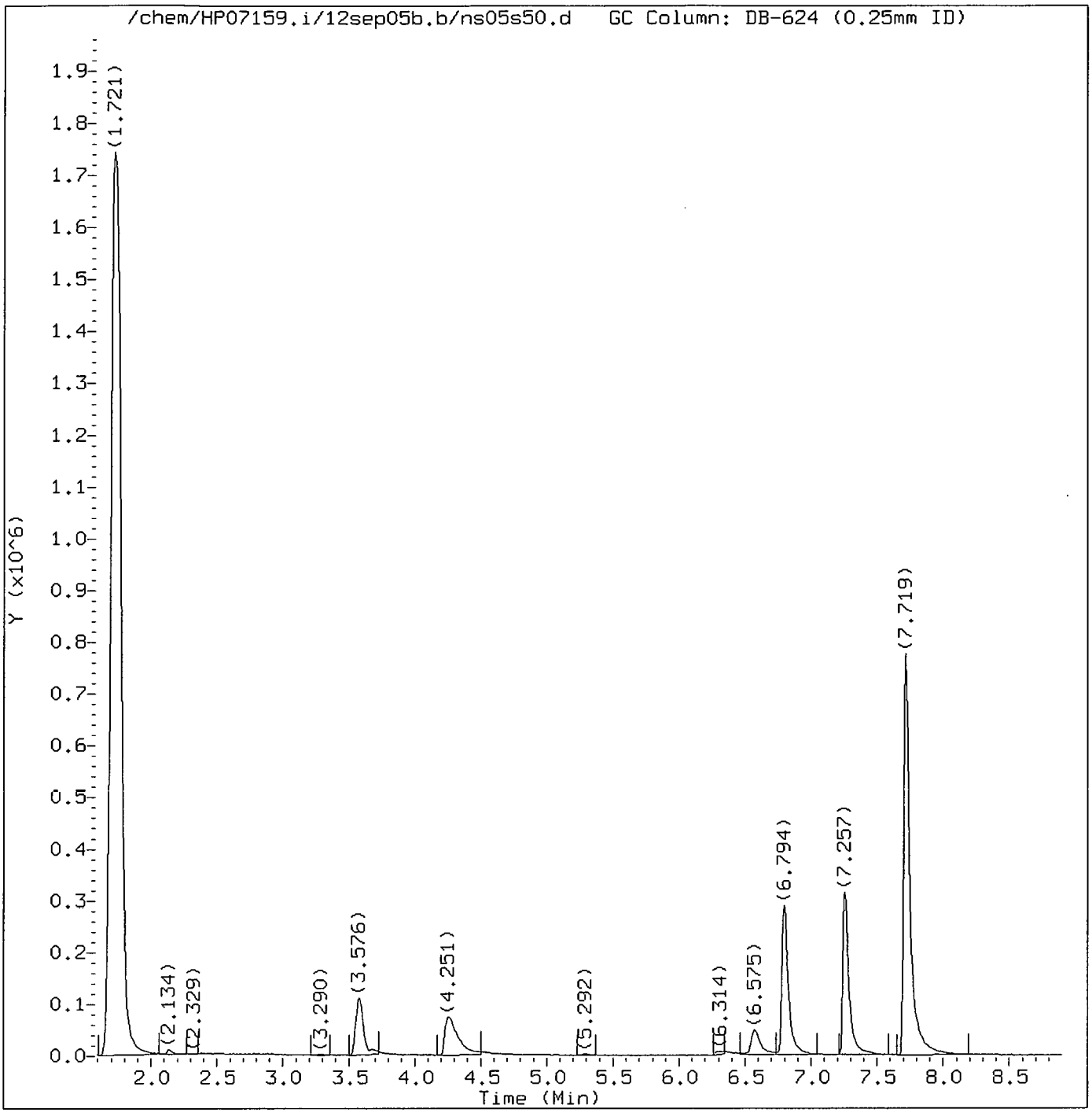
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

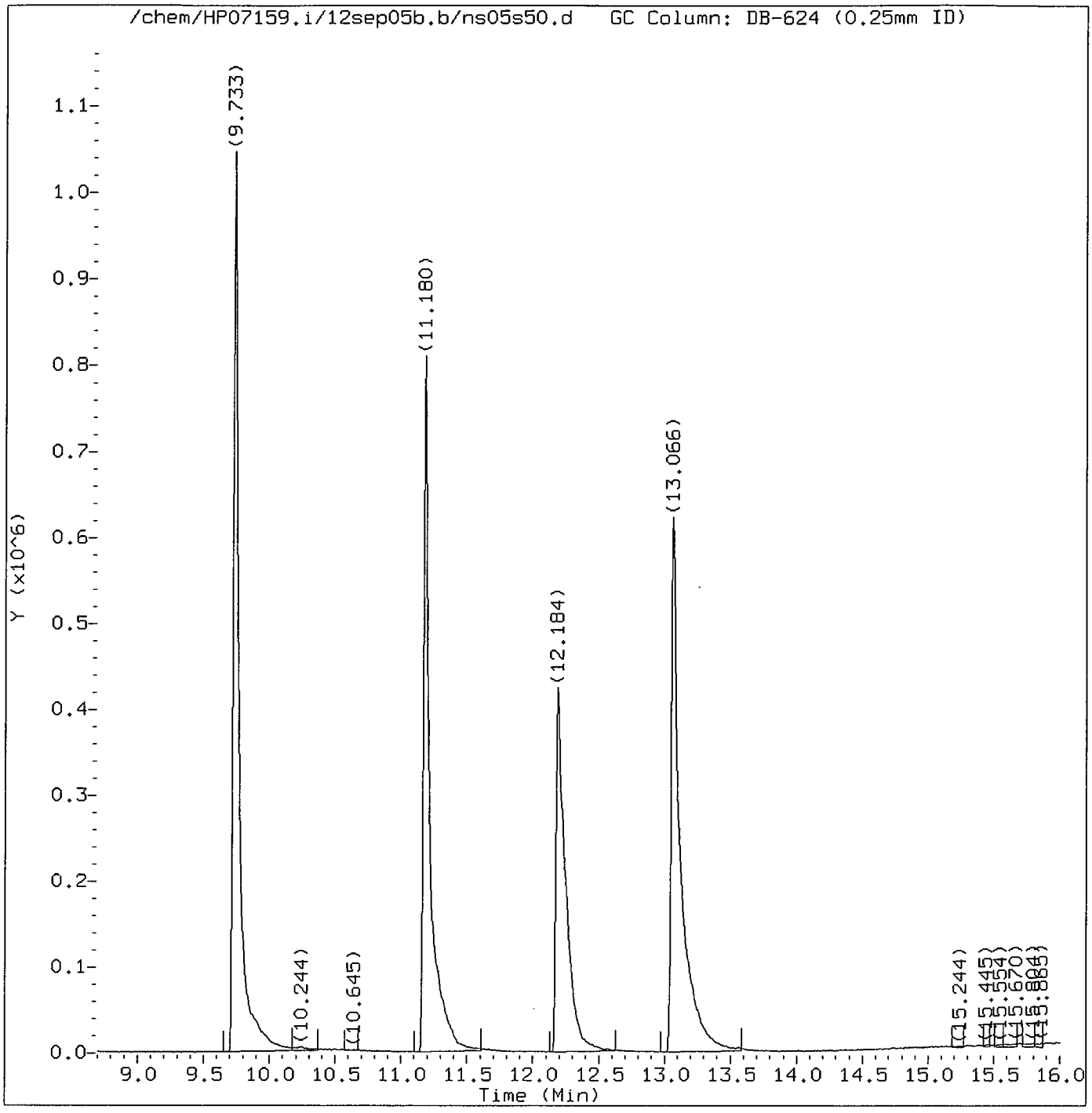
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18S Lab Sample ID: 6769201

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d
Injection date and time: 05-SEP-2012 20:49

Instrument ID: HP07159.i
Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sublist used: 8732

Sample Name: PA18S

Lab Sample ID: 6769201

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

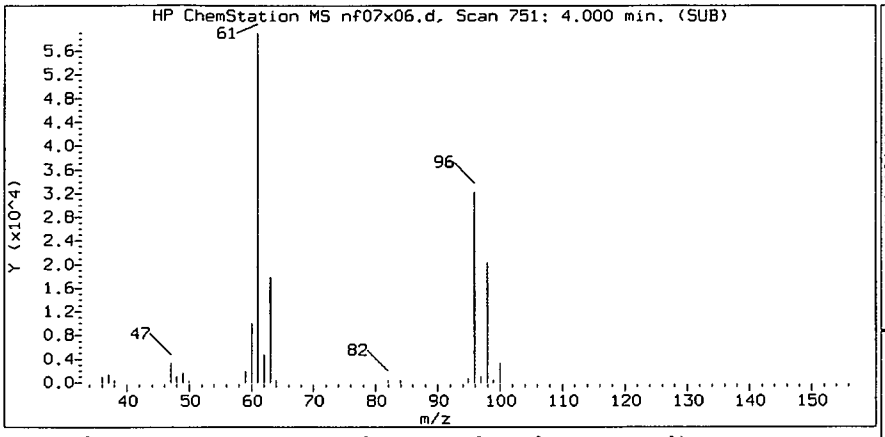
Sample Name: PA18S Lab Sample ID: 6769201

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.582	96	78506	14.384
19) Acetone	(1)	3.698	58	13720M	12.186
26)*t-Butyl Alcohol-d10	(4)	4.251	65	303157	250.000
42) 2-Butanone	(1)	6.338	43	43485A	8.184
50) Chloroform	(1)	6.575	83	33512	2.962
51)$Dibromofluoromethane	(1)	6.800	113	312570	52.120
53) 1,1,1-Trichloroethane	(1)	6.831	97	10142M	1.090
62)$1,2-Dichloroethane-d4	(1)	7.257	102	82492	51.428
70)*Fluorobenzene	(1)	7.719	96	1341635	50.000
86)$Toluene-d8	(2)	9.733	98	1275596	46.973
98)*Chlorobenzene-d5	(2)	11.180	117	970602	50.000
114)$4-Bromofluorobenzene	(2)	12.184	95	463114	46.907
130)*1,4-Dichlorobenzene-d4	(3)	13.066	152	545082	50.000

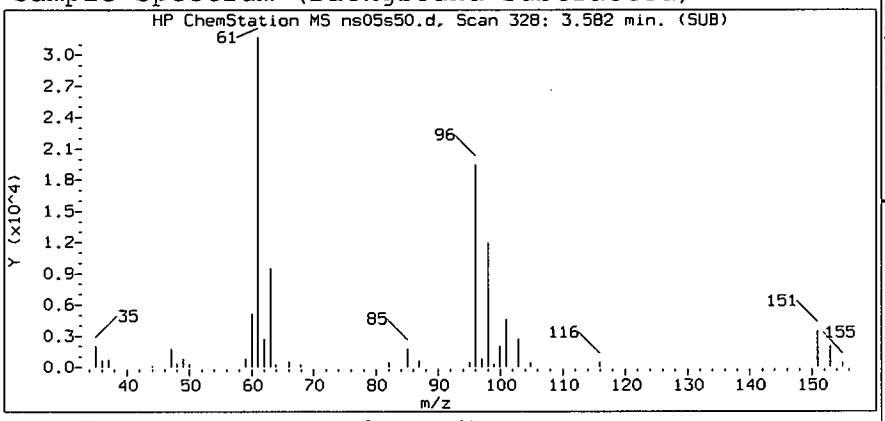
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

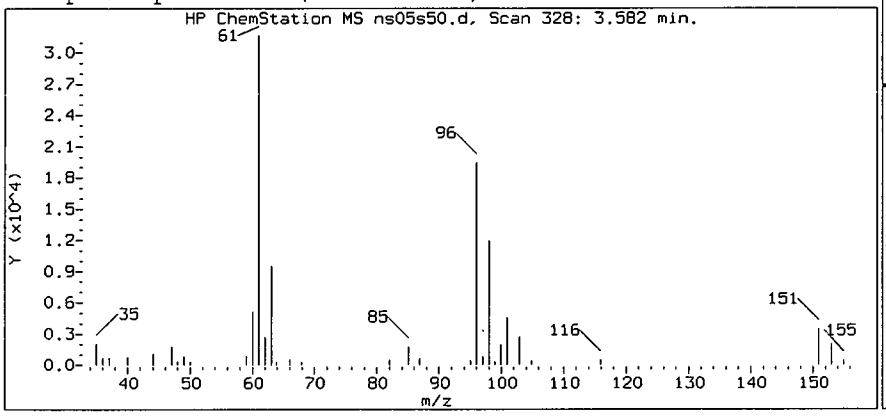
Reference Standard Spectrum for 1,1-Dichloroethene

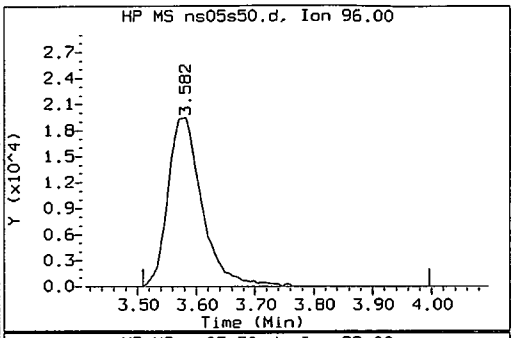


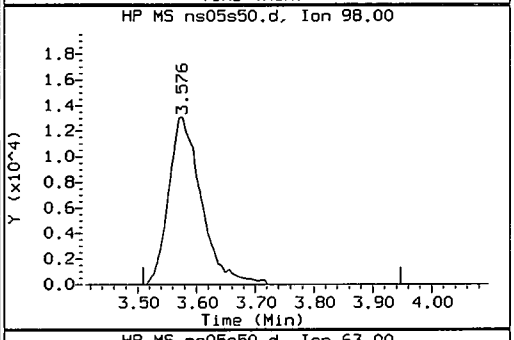
Sample Spectrum (Background Subtracted)

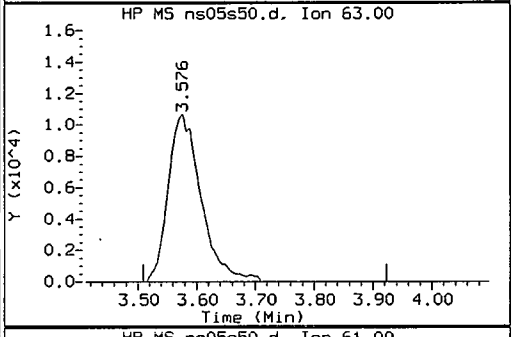


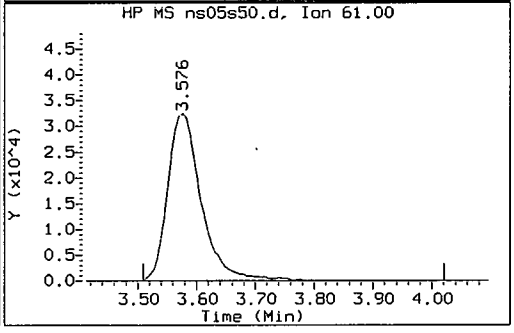
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

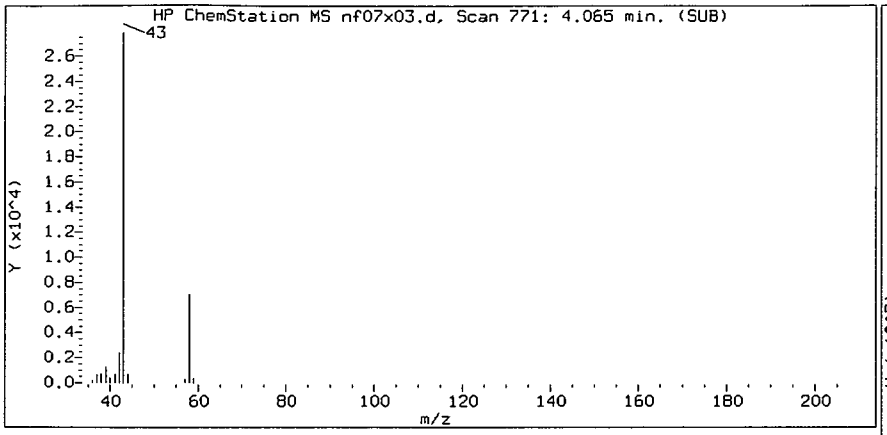
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

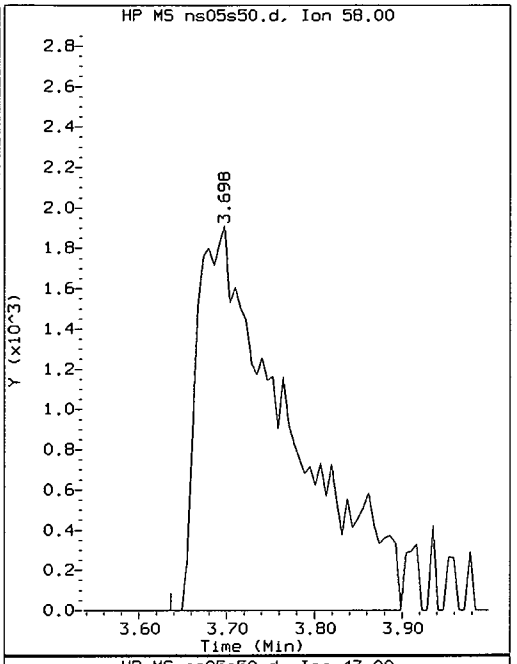
Sample Name: PA18S Lab Sample ID: 6769201

Compound Number : 16
Compound Name : 1,1-Dichloroethene
Scan Number : 328
Retention Time (minutes): 3.582
Relative Retention Time :-0.00055
Quant Ion : 96.00
Area (flag) : 78506
On-Column Amount (ng) : 14.3844

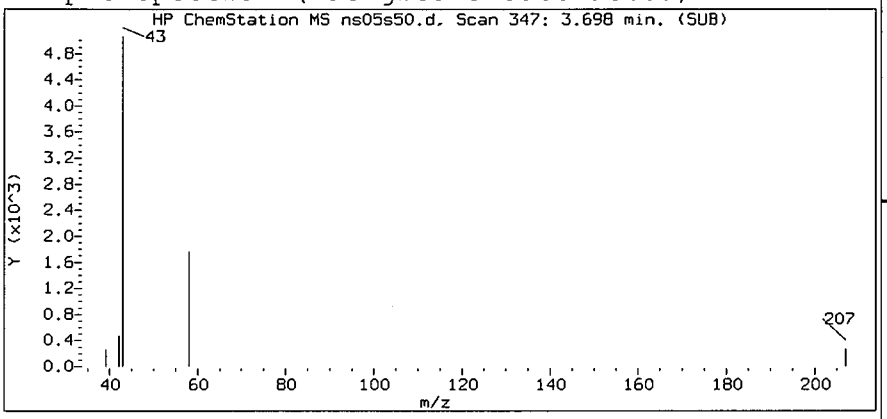
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

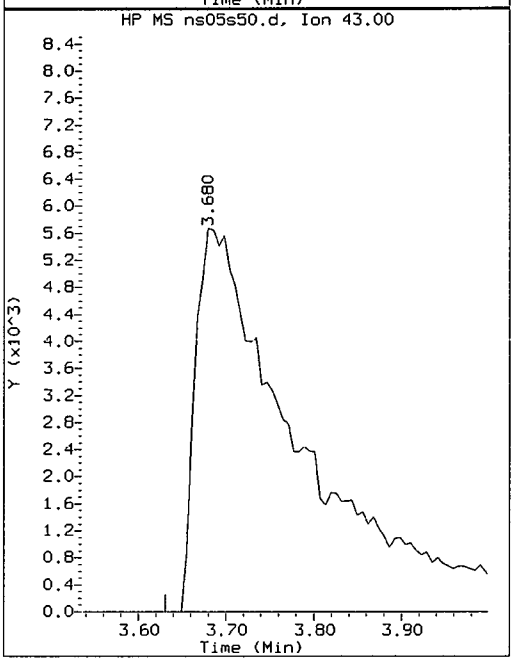
Reference Standard Spectrum for Acetone



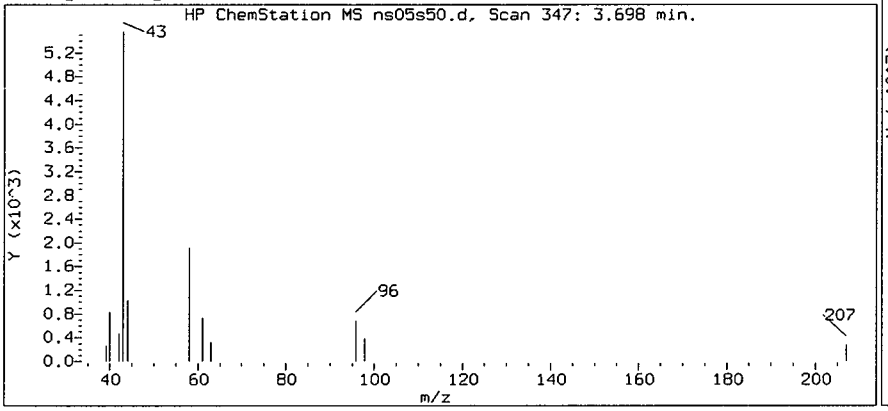


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d
Injection date and time: 05-SEP-2012 20:49

Instrument ID: HP07159.i
Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sublist used: 8732

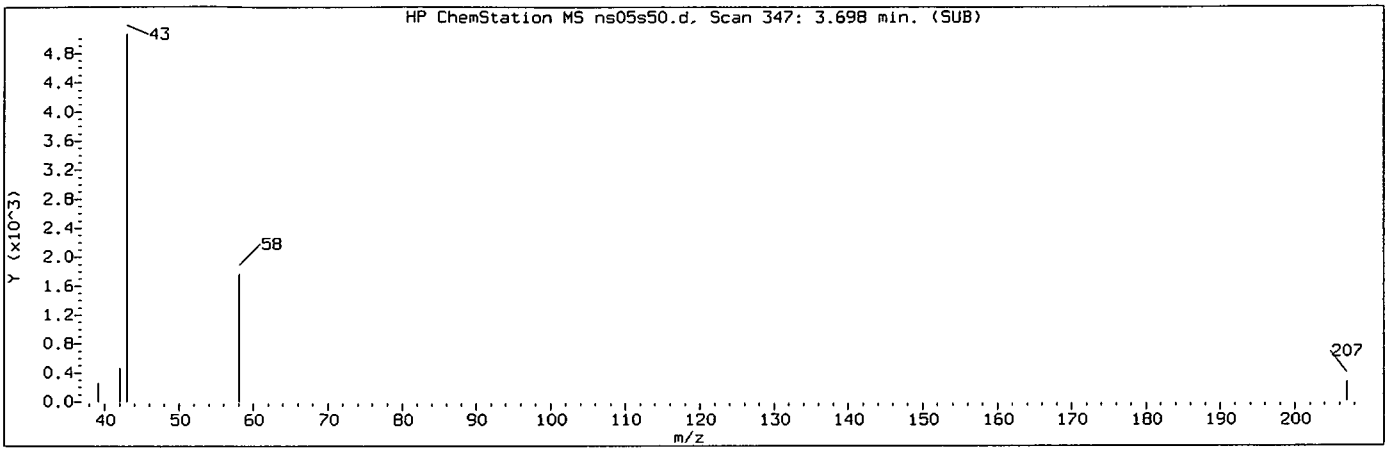
Sample Name: PA18S

Lab Sample ID: 6769201

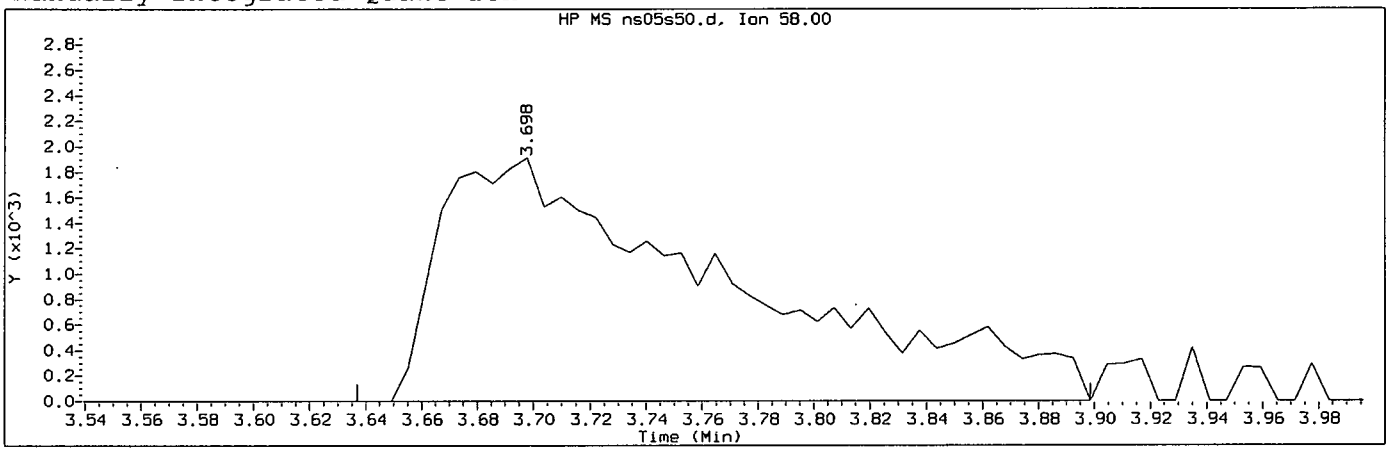
Compound Number : 19
Compound Name : Acetone
Scan Number : 347
Retention Time (minutes): 3.698
Relative Retention Time :-0.01000
Quant Ion : 58.00
Area (flag) : 13720M
On-Column Amount (ng) : 12.1858

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18S Lab Sample ID: 6769201

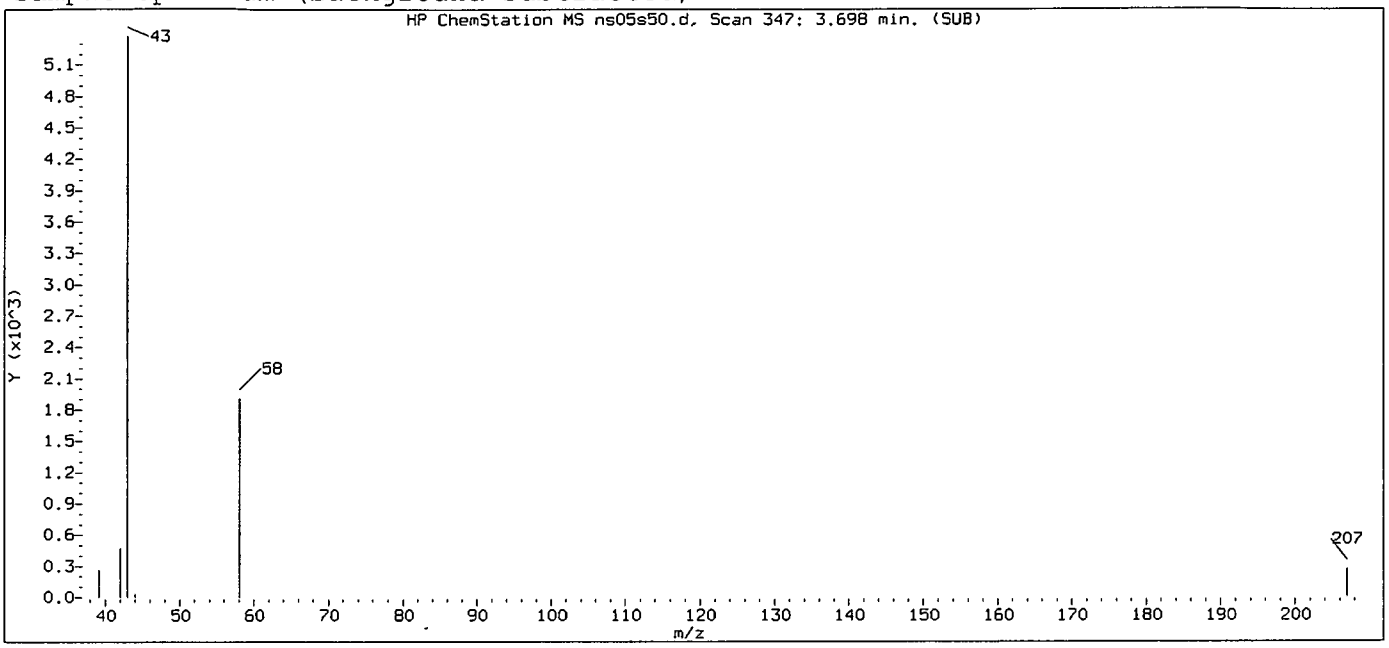
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 347		
Retention Time (minutes)	: 3.698		
Quant Ion	: 58.00		
Area (flag)	: 13720M		
On-Column Amount (ng)	: 12.1858		
Integration start scan	: 336	Integration stop scan:	379
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

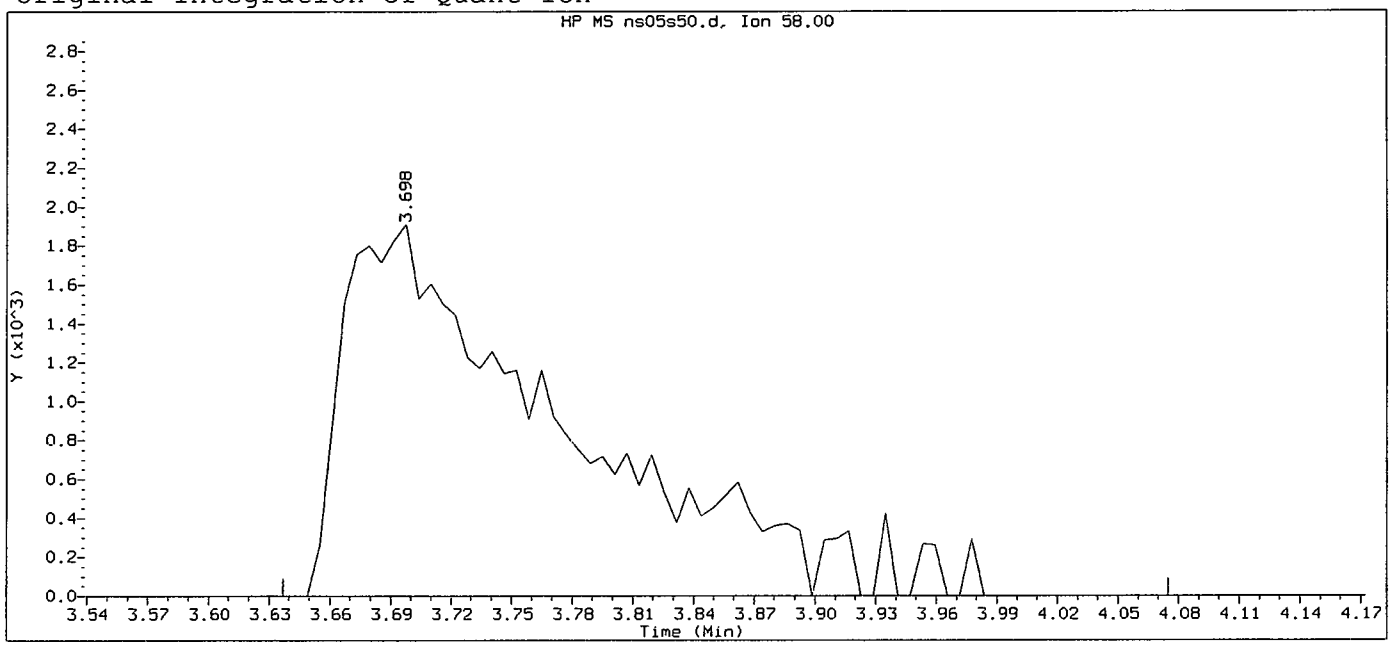
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

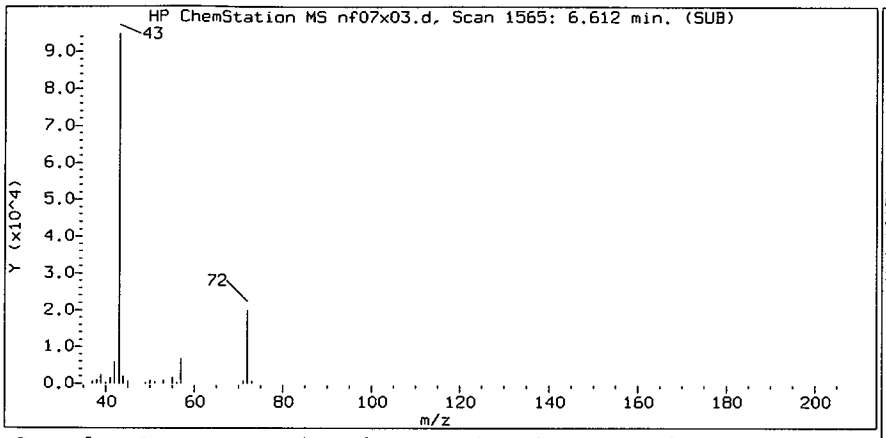
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 21:09 Automation

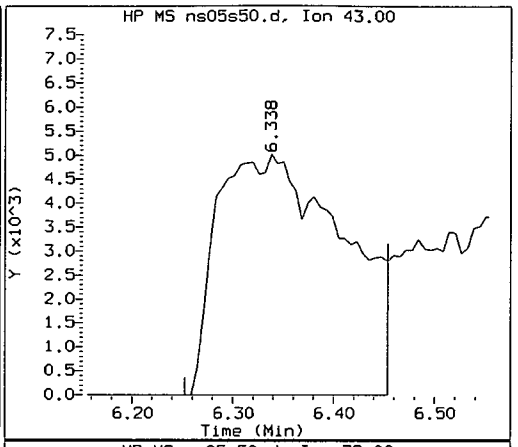
Sample Name: PA18S Lab Sample ID: 6769201

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 347		
Retention Time (minutes)	: 3.698		
Quant Ion	: 58.00		
Area	: 14507		
On-column Amount (ng)	: 12.8852		
Integration start scan	: 336	Integration stop scan:	408
Y at integration start	: 0	Y at integration end:	0

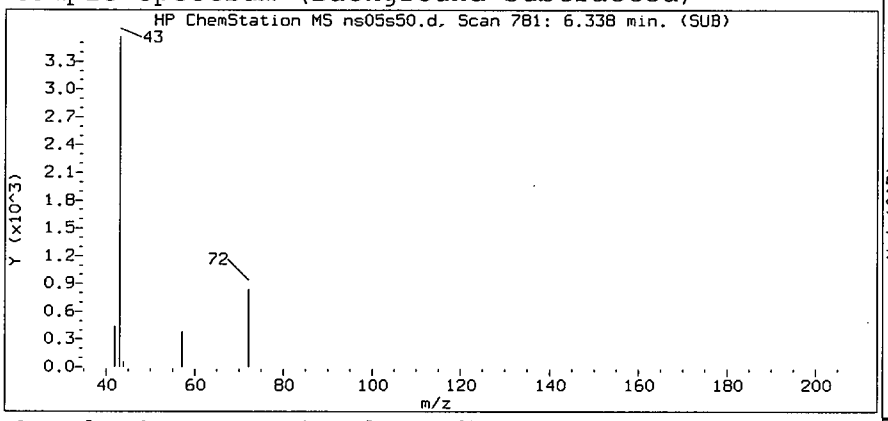
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

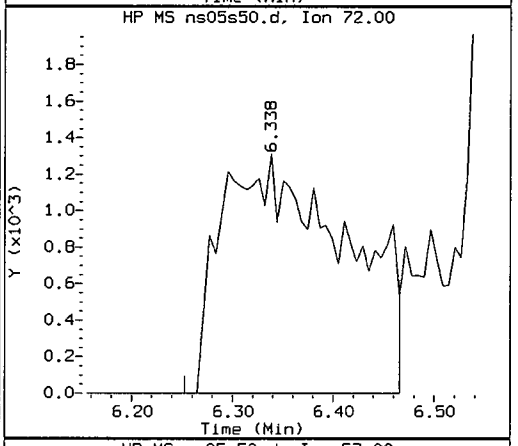
Reference Standard Spectrum for 2-Butanone



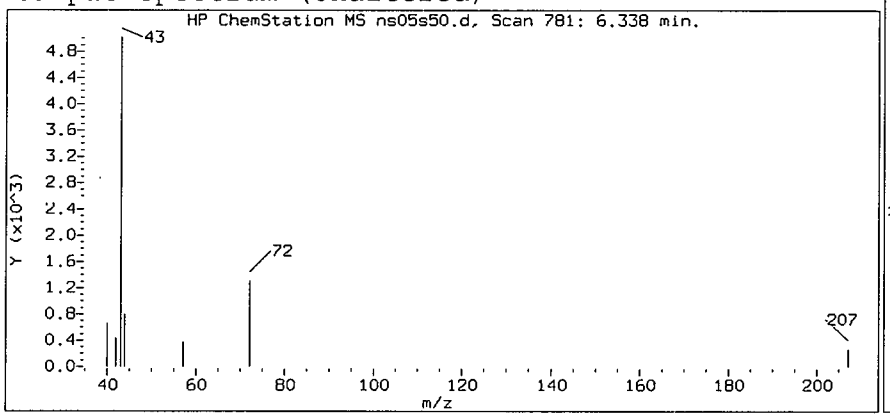


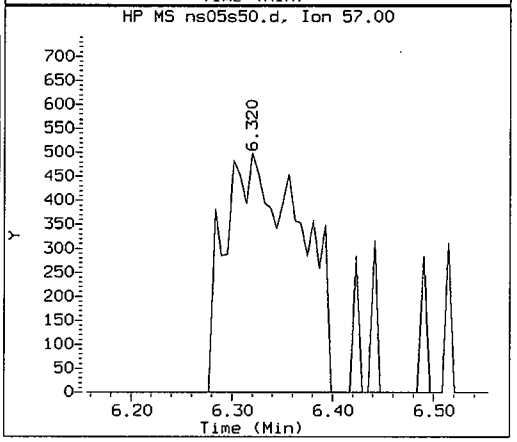
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

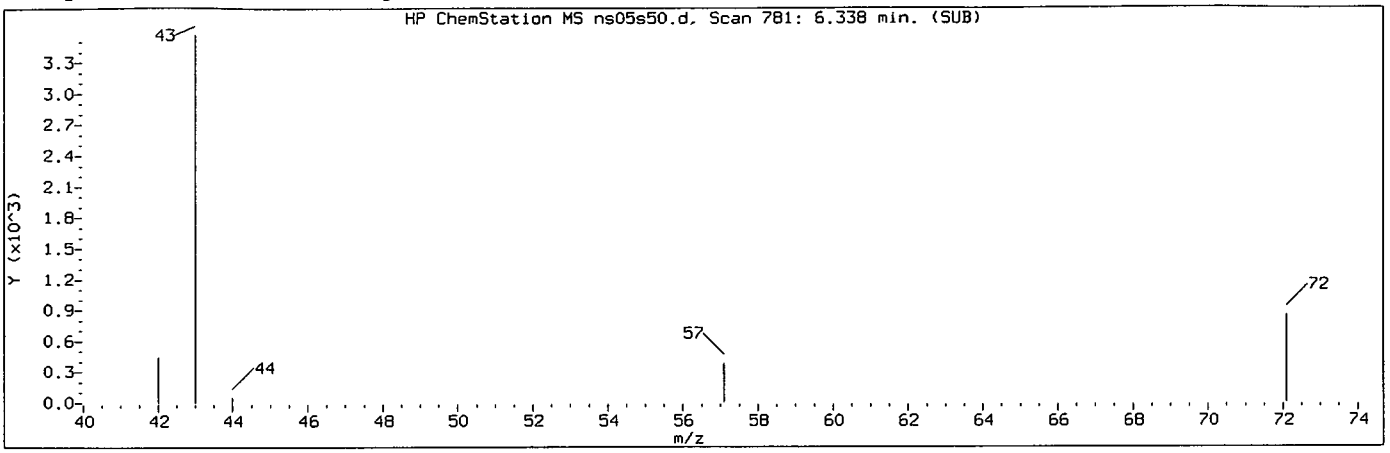
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18S Lab Sample ID: 6769201

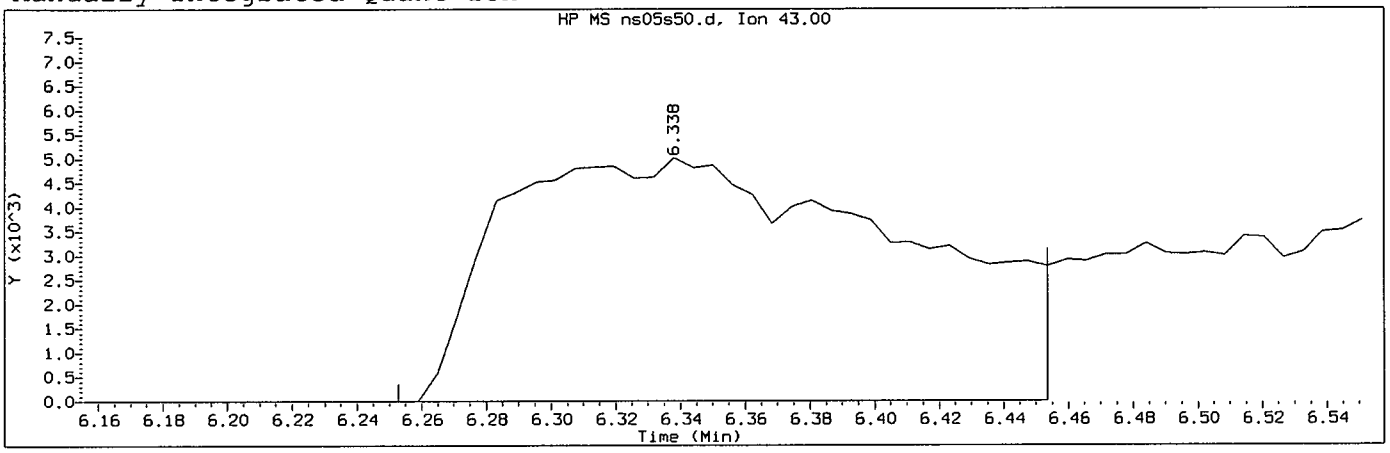
Compound Number : 42
Compound Name : 2-Butanone
Scan Number : 781
Retention Time (minutes): 6.338
Relative Retention Time :-0.02464
Quant Ion : 43.00
Area (flag) : 43485A
On-Column Amount (ng) : 8.1840

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18S Lab Sample ID: 6769201

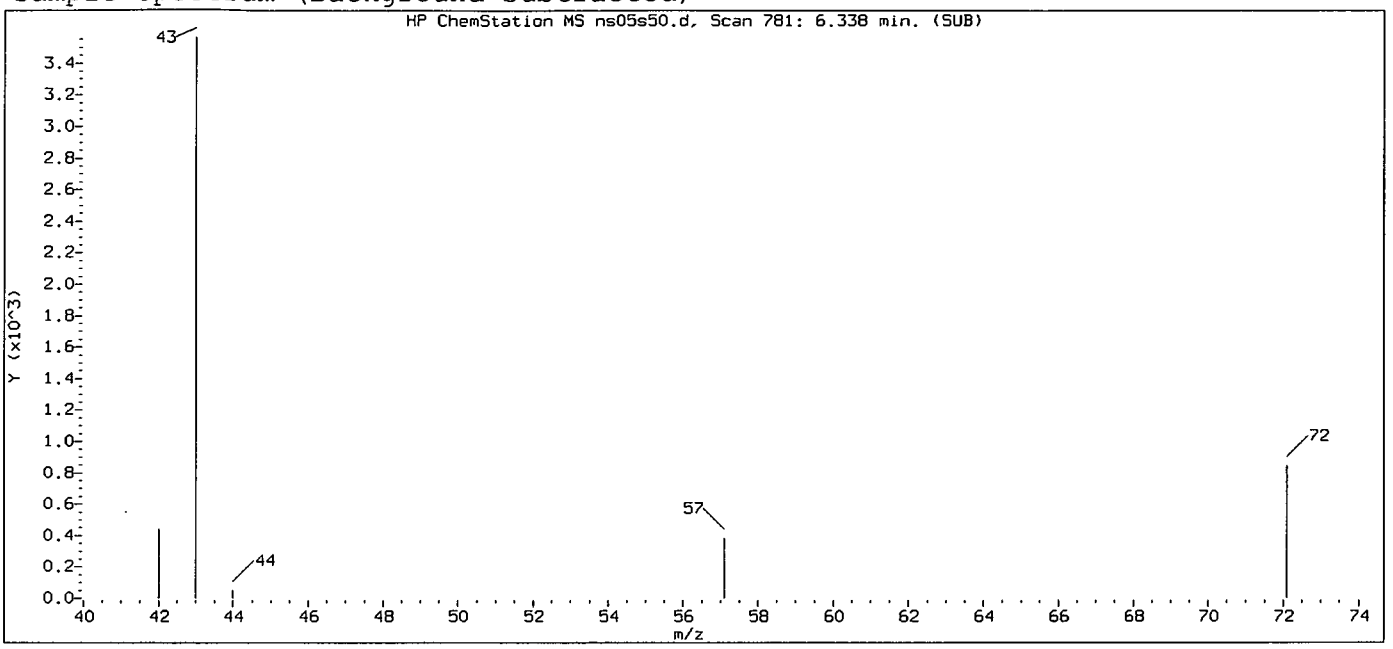
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 781		
Retention Time (minutes)	: 6.338		
Quant Ion	: 43.00		
Area (flag)	: 43485A		
On-Column Amount (ng)	: 8.1840		
Integration start scan	: 766	Integration stop scan:	799
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

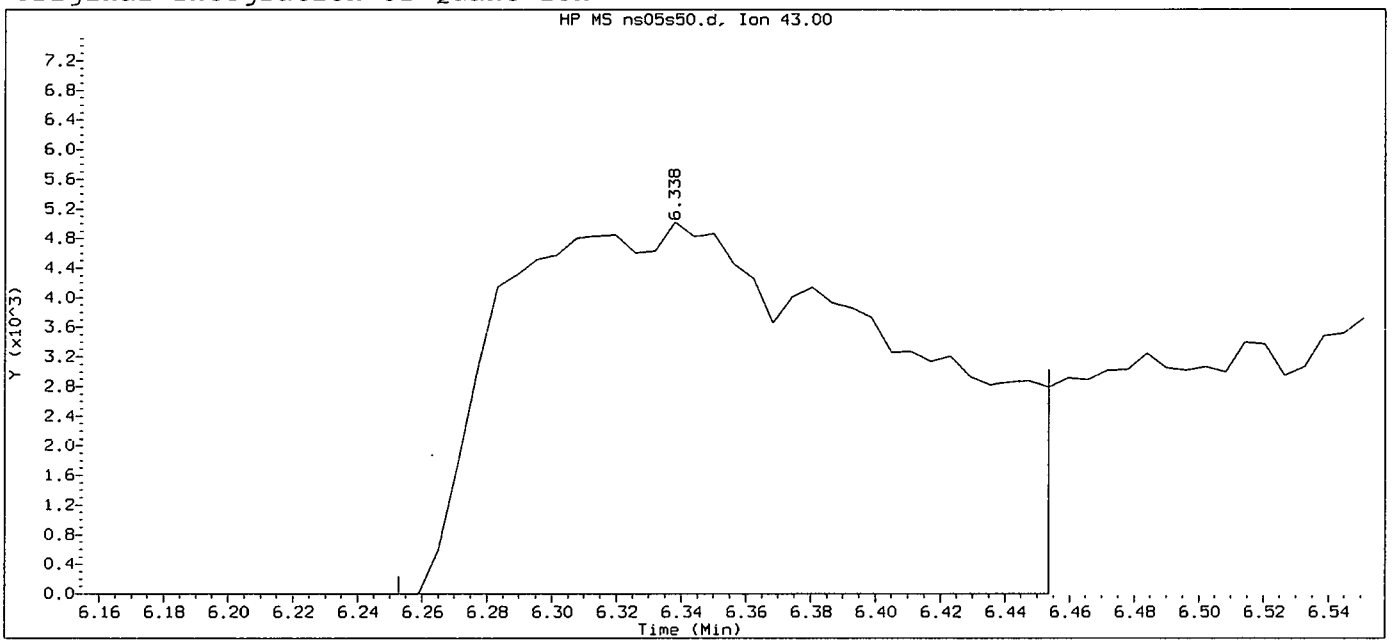
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

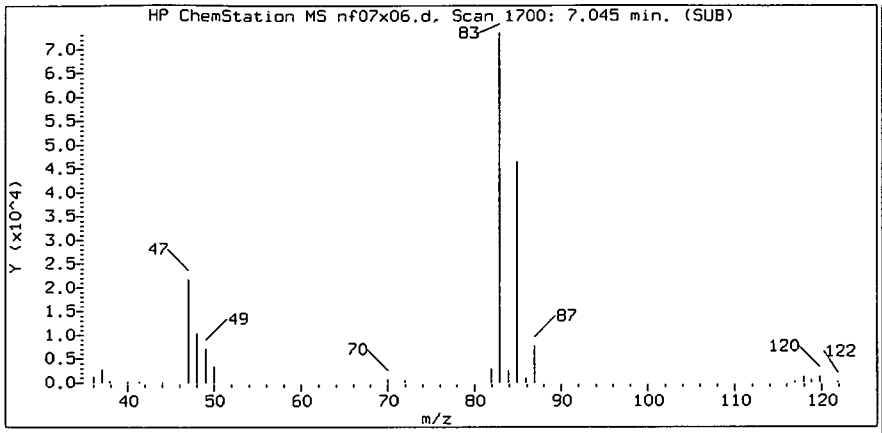
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 21:09 Automation

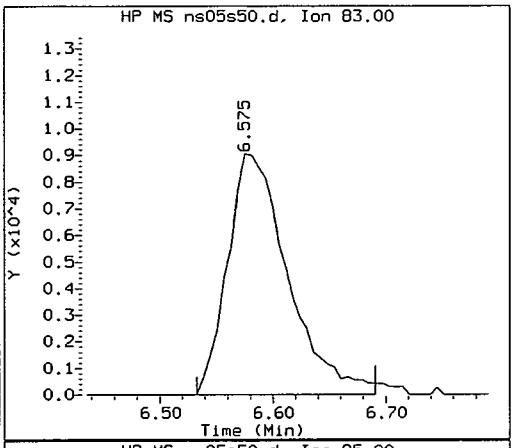
Sample Name: PA18S Lab Sample ID: 6769201

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 781		
Retention Time (minutes)	: 6.338		
Quant Ion	: 43.00		
Area	: 43485		
On-column Amount (ng)	: 8.1842		
Integration start scan	: 766	Integration stop scan:	799
Y at integration start	: 0	Y at integration end:	0

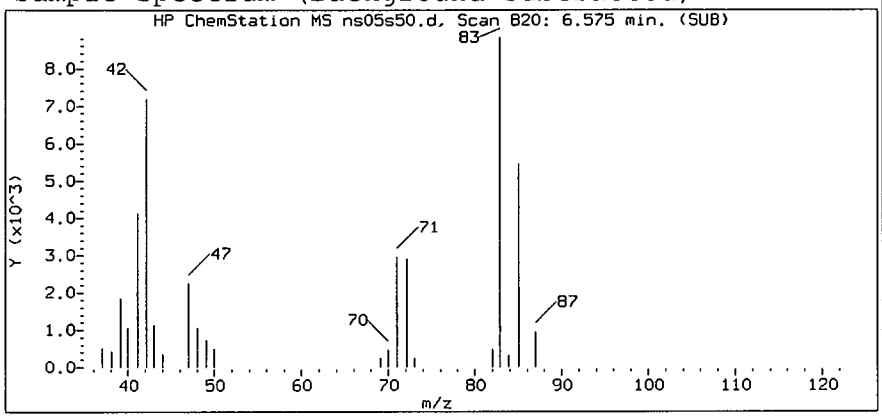
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

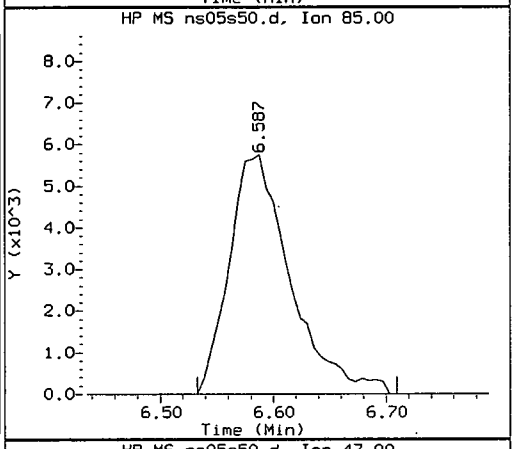
Reference Standard Spectrum for Chloroform



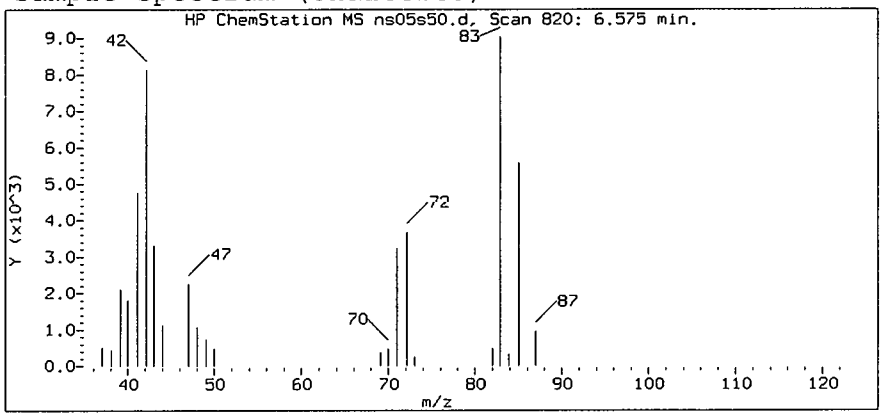


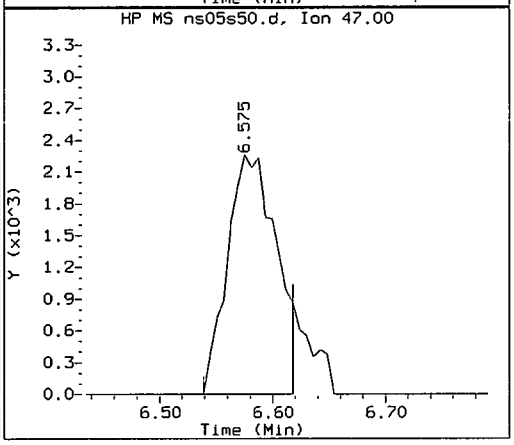
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

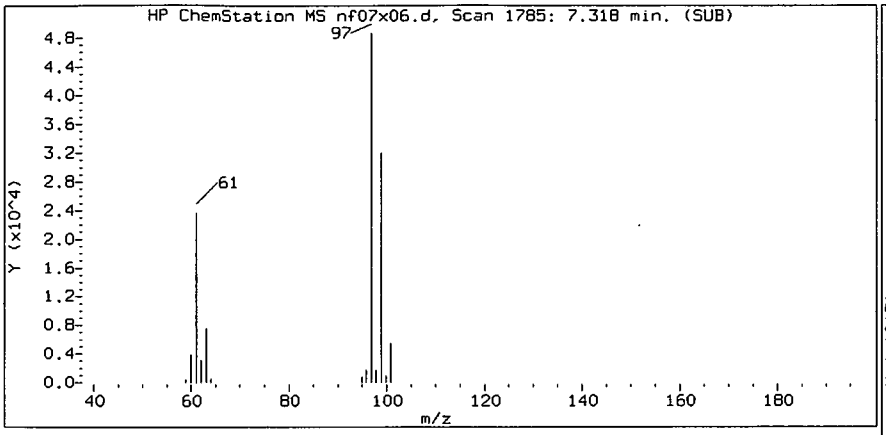
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

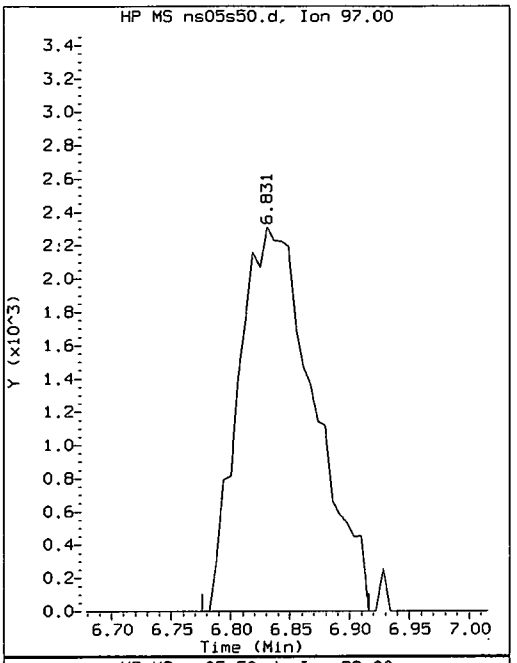
Sample Name: PA18S Lab Sample ID: 6769201

Compound Number	: 50
Compound Name	: Chloroform
Scan Number	: 820
Retention Time (minutes)	: 6.575
Relative Retention Time	:-0.00094
Quant Ion	: 83.00
Area (flag)	: 33512
On-Column Amount (ng)	: 2.9619

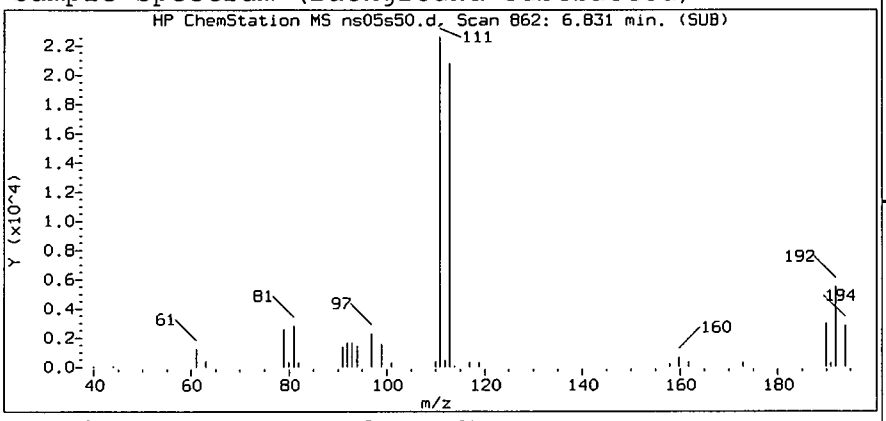
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

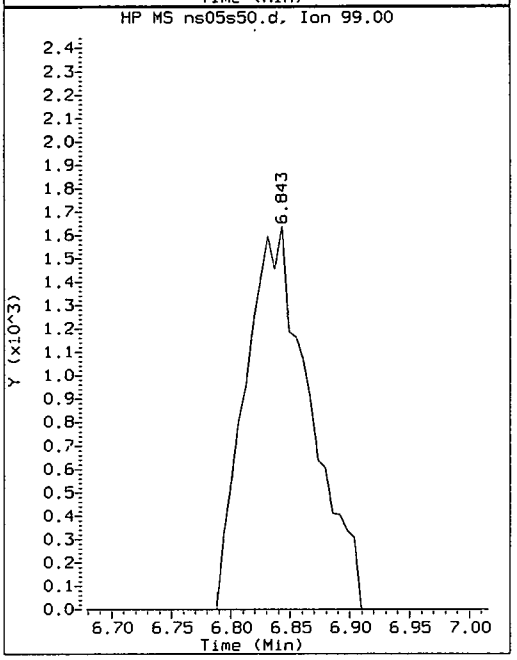
Reference Standard Spectrum for 1,1,1-Trichloroethane



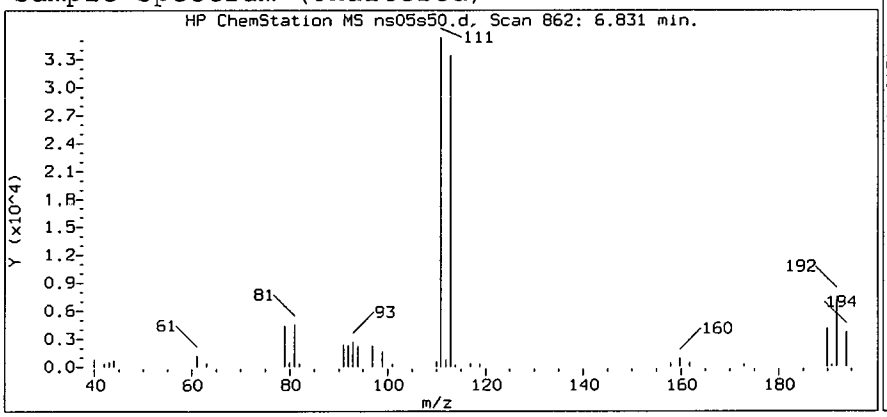


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

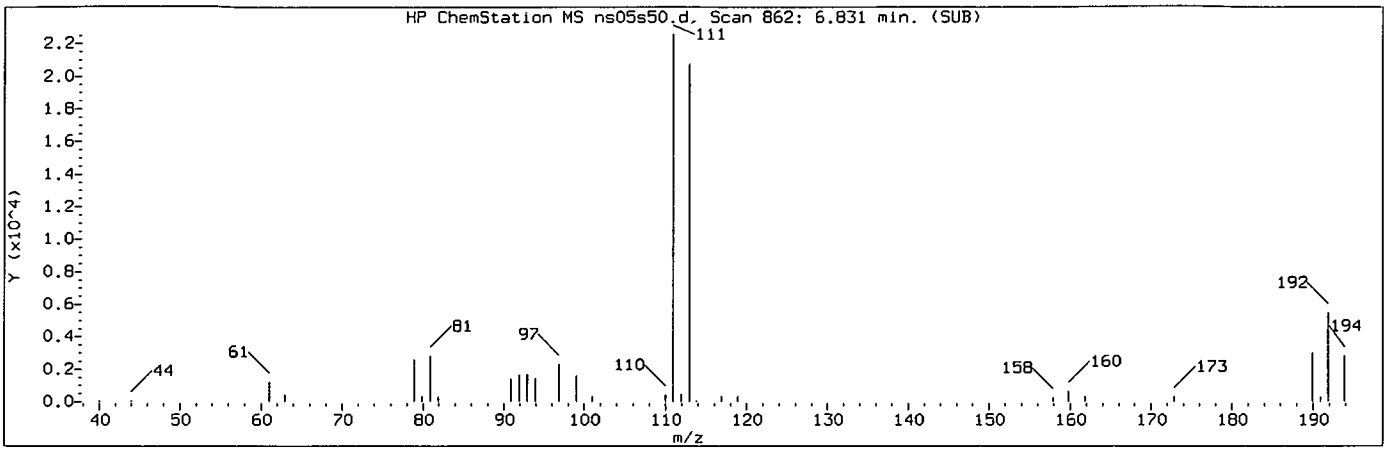
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18S Lab Sample ID: 6769201

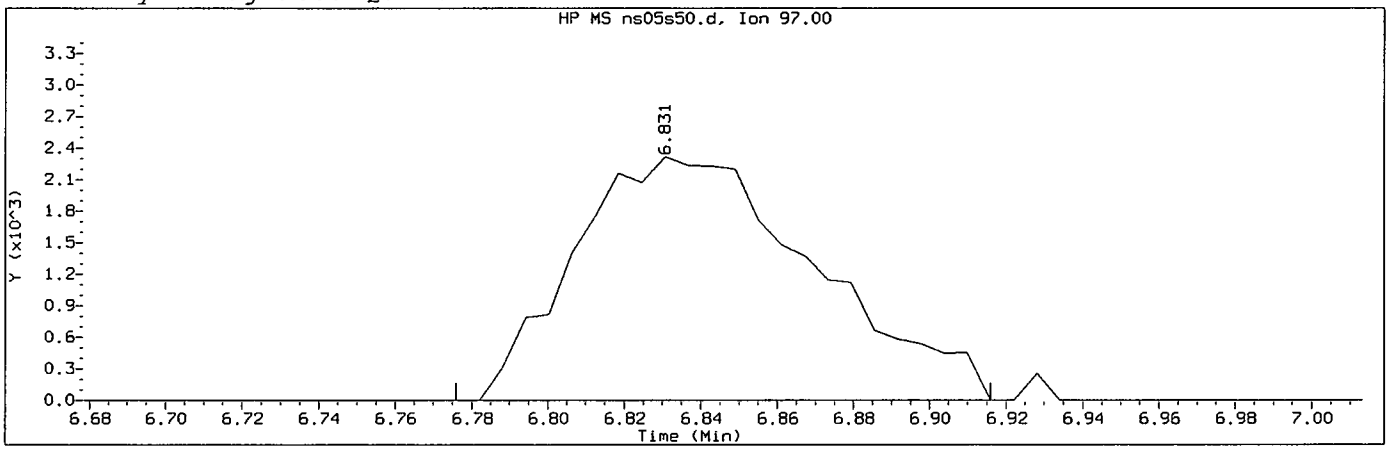
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 862
Retention Time (minutes): 6.831
Relative Retention Time :-0.00012
Quant Ion : 97.00
Area (flag) : 10142M
On-Column Amount (ng) : 1.0896

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18S Lab Sample ID: 6769201

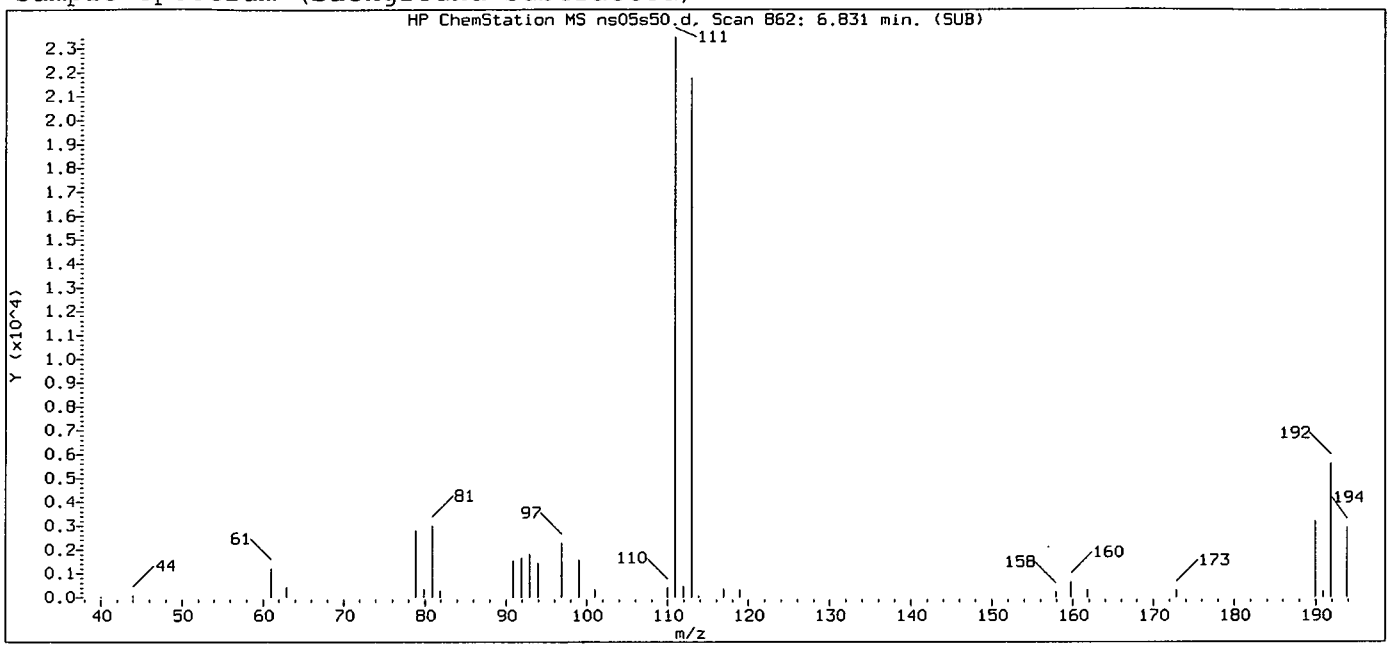
Compound Number	: 53		
Compound Name	: 1,1,1-Trichloroethane		
Scan Number	: 862		
Retention Time (minutes)	: 6.831		
Quant Ion	: 97.00		
Area (flag)	: 10142M		
On-Column Amount (ng)	: 1.0896		
Integration start scan	: 852	Integration stop scan:	875
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

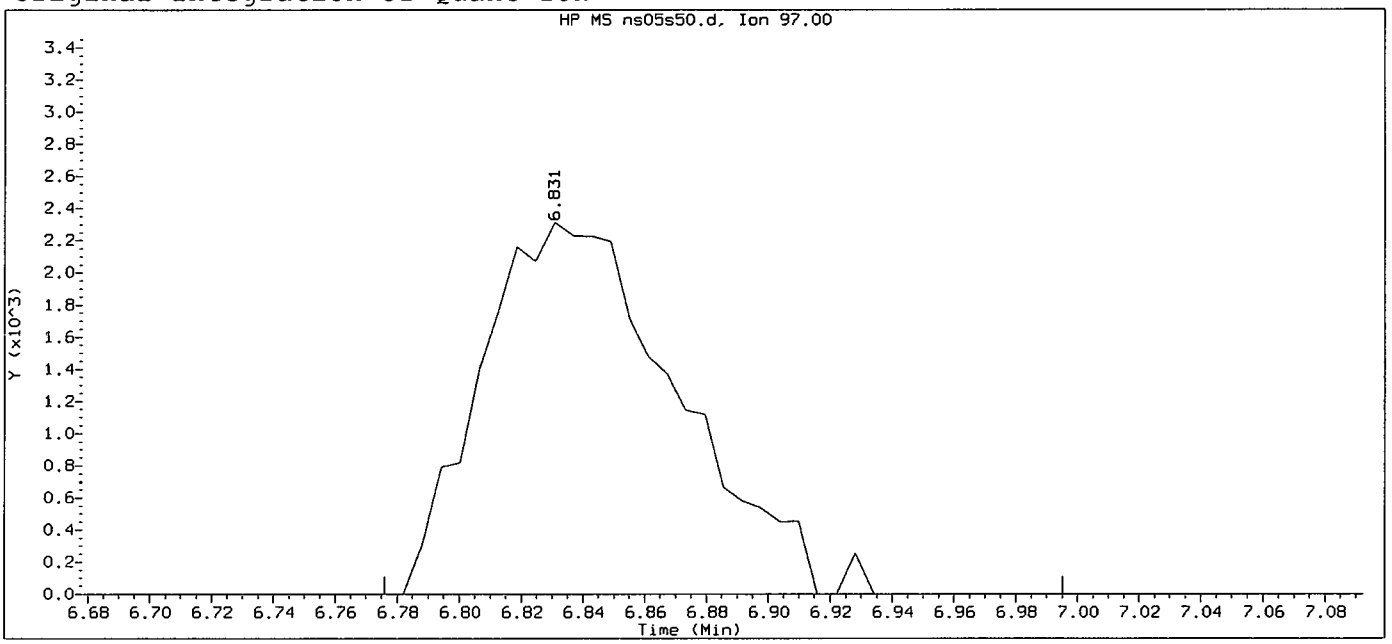
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s50.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 20:49 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 21:09 Automation

Sample Name: PA18S Lab Sample ID: 6769201

Compound Number	: 53		
Compound Name	: 1,1,1-Trichloroethane		
Scan Number	: 862		
Retention Time (minutes)	: 6.831		
Quant Ion	: 97.00		
Area	: 10235		
On-column Amount (ng)	: 1.0996		
Integration start scan	: 852	Integration stop scan:	888
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:34.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA18D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769202

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s51.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	21	
67-64-1	Acetone	11	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	9	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	2	J
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA18D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769202

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s51.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA18D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769202

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s51.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PA18D

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769202

Data file: /chem/HP07159.i/12sep05b.b/ns05s51.d Injection date and time: **05-SEP-2012 21:12**
Data file Sample Info. Line: PA18D;6769202;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.259(-0.022)	439	65	301102 (-21)	250.00	
70) Fluorobenzene	7.714(-0.003)	1007	96	1343545 (-11)	50.00	
98) Chlorobenzene-d5	11.182(-0.015)	1577	117	967250 (-9)	50.00	
130) 1,4-Dichlorobenzene-d4	13.062(-0.034)	1886	152	542832 (-14)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.796(-0.001)	113	312520	52.037	104%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.258(-0.001)	102	79894	49.737	99%		77 - 113
86) Toluene-d8	(2)	9.734(0.000)	98	1278168	47.231	94%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.186(-0.001)	95	467114	47.476	95%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
1) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
4) Vinyl Chloride	(1)			Not Detected					1	5
5) Bromomethane	(1)			Not Detected					1	5
7) Chloroethane	(1)			Not Detected					1	5
8) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.578(-0.000)	96	112945	20.665	20.67			0.8	5
19) Acetone	(1)	3.693(-0.009)	58	12719M	11.281	11.28		J	6	20
25) Methylene Chloride	(1)			Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
42) 2-Butanone	(1)	6.315(-0.022)	43	46159A	8.675	8.67		J	3	10
44) 2,2-Dichloropropane	(1)			Not Detected					1	5
48) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)	6.589(-0.003)	83	26205M	2.313	2.31		J	0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)			Not Detected					1	5
59) Carbon Tetrachloride	(1)			Not Detected					1	5
65) Benzene	(1)			Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
76) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
81) Bromodichloromethane	(1)			Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
88) Toluene	(2)			Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35. Target 3.5 esignature user ID: sag03174

Data file: /chem/HP07159.i/12sep05b.b/ns05s51.d Injection date and time: **05-SEP-2012 21:12**
Data file Sample Info. Line: PA18D;6769202;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

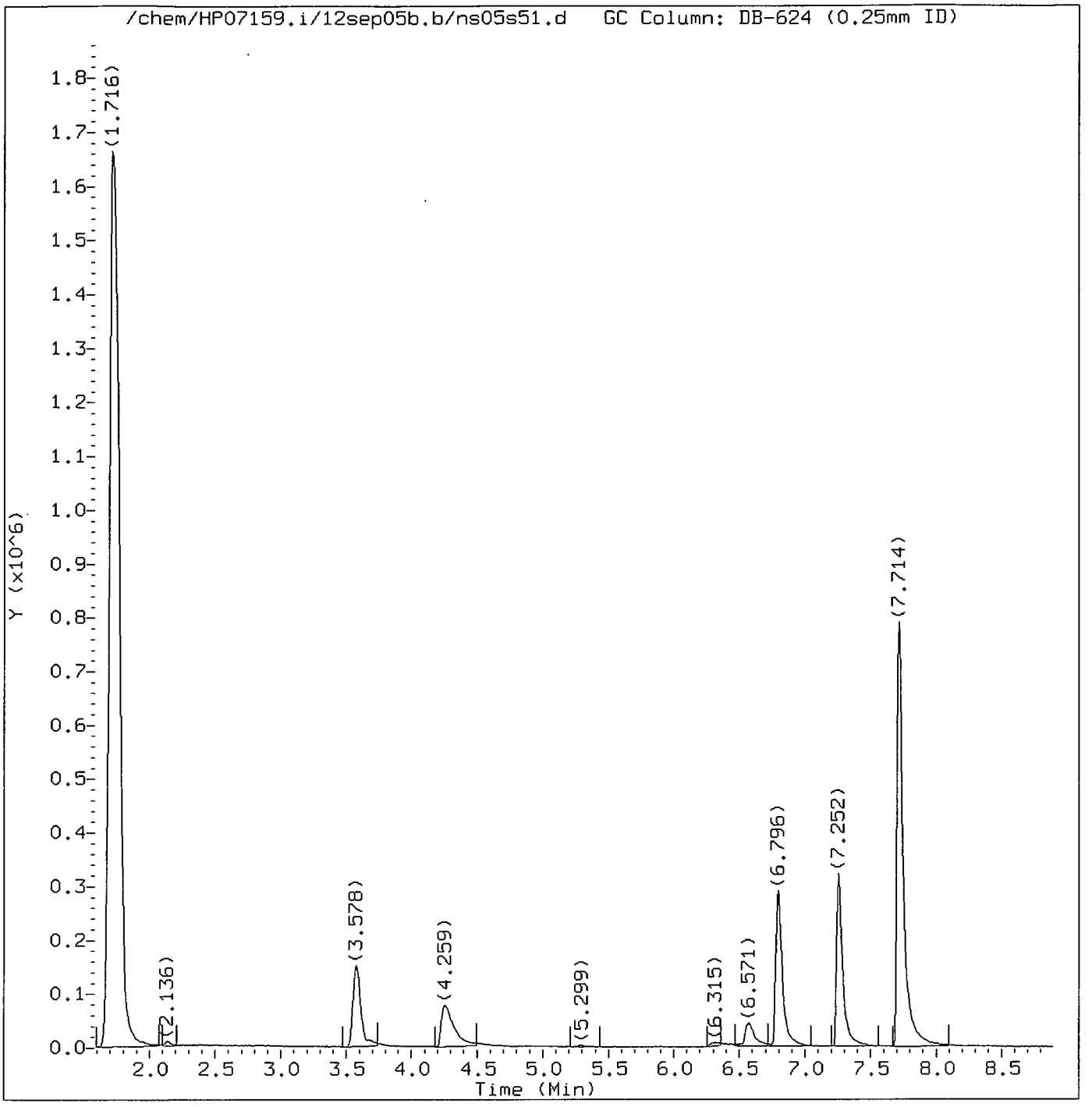
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)			Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)			Not Detected					1	5
96) Dibromochloromethane	(2)			Not Detected					1	5
97) 1,2-Dibromoethane	(2)			Not Detected					1	5
100) Chlorobenzene	(2)			Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)			Not Detected					1	5
102) Ethylbenzene	(2)			Not Detected					0.8	5
103) m+p-Xylene	(2)			Not Detected					0.8	5
106) o-Xylene	(2)			Not Detected					0.8	5
109) Styrene	(2)			Not Detected					1	5
110) Bromoform	(2)			Not Detected					1	5
111) Isopropylbenzene	(2)			Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					1	5
117) Bromobenzene	(3)			Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)			Not Detected					1	5
120) n-Propylbenzene	(3)			Not Detected					1	5
121) 2-Chlorotoluene	(3)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)			Not Detected					1	5
123) 4-Chlorotoluene	(3)			Not Detected					1	5
124) tert-Butylbenzene	(3)			Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)			Not Detected					1	5
127) sec-Butylbenzene	(3)			Not Detected					1	5
128) p-Isopropyltoluene	(3)			Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)			Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)			Not Detected					1	5
136) n-Butylbenzene	(3)			Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)			Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)			Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)			Not Detected					1	5
141) Hexachlorobutadiene	(3)			Not Detected					2	5
142) Naphthalene	(3)			Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)			Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

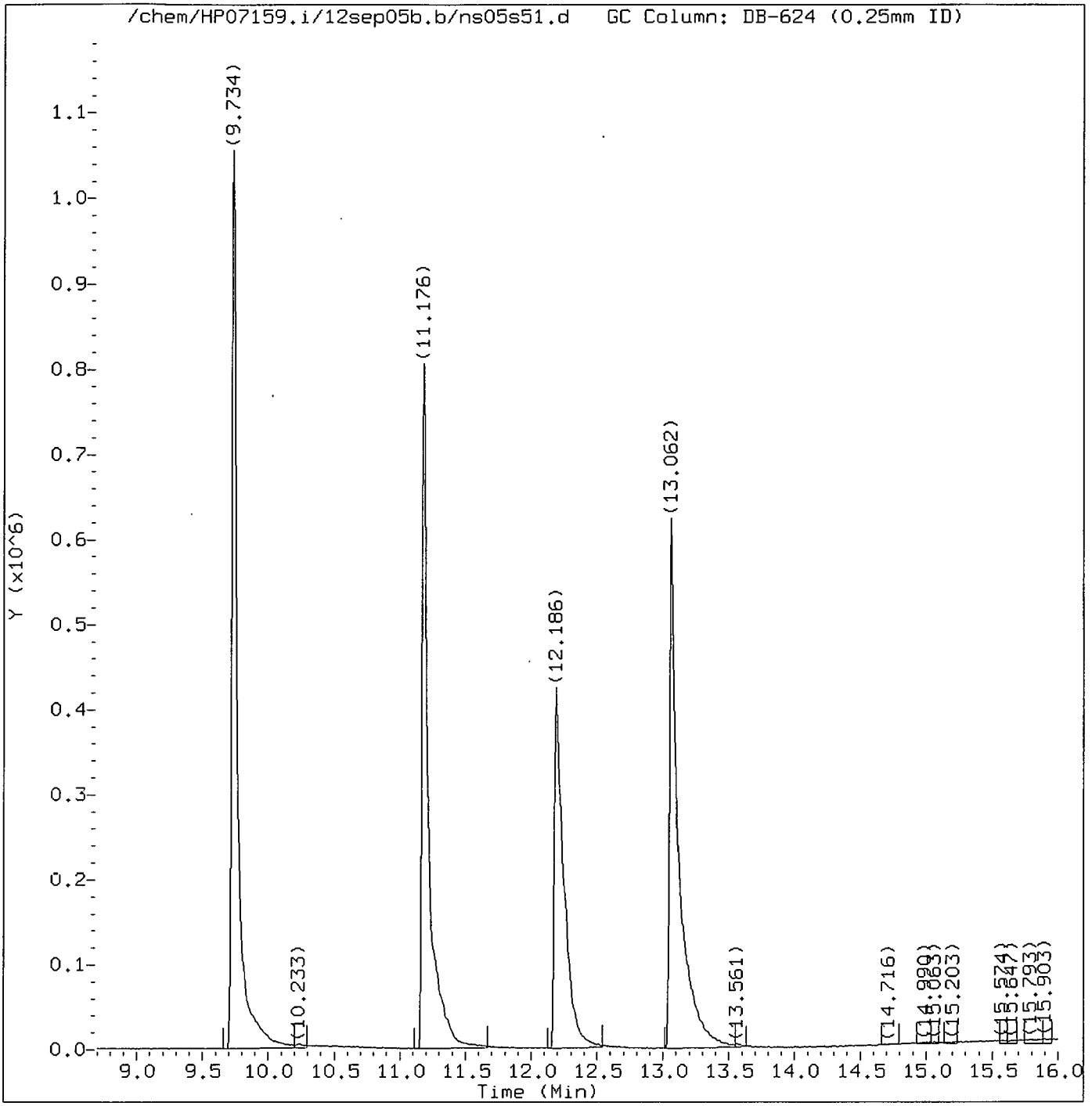
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18D Lab Sample ID: 6769202

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18D Lab Sample ID: 6769202

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

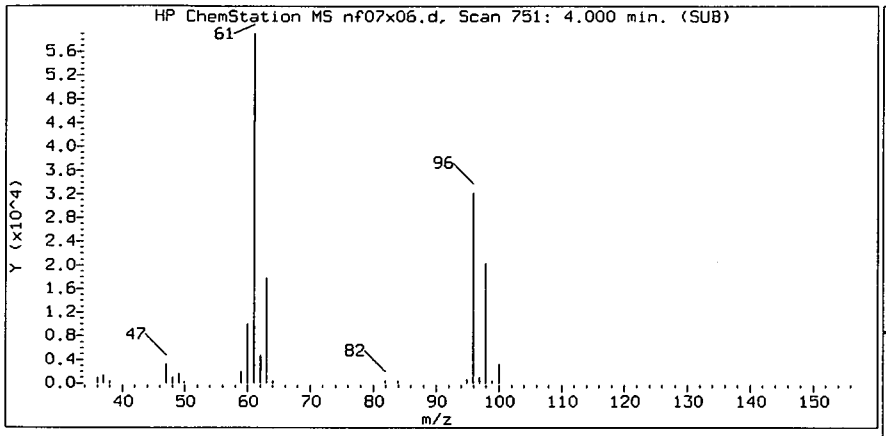
Sample Name: PA18D Lab Sample ID: 6769202

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.578	96	112945	20.665
19) Acetone	(1)	3.693	58	12719M	11.281
26)*t-Butyl Alcohol-d10	(4)	4.259	65	301102	250.000
42) 2-Butanone	(1)	6.315	43	46159A	8.675
50) Chloroform	(1)	6.589	83	26205M	2.313
51)$Dibromofluoromethane	(1)	6.796	113	312520	52.037
62)$1,2-Dichloroethane-d4	(1)	7.258	102	79894	49.737
70)*Fluorobenzene	(1)	7.714	96	1343545	50.000
86)$Toluene-d8	(2)	9.734	98	1278168	47.231
98)*Chlorobenzene-d5	(2)	11.182	117	967250	50.000
114)$4-Bromofluorobenzene	(2)	12.186	95	467114	47.476
130)*1,4-Dichlorobenzene-d4	(3)	13.062	152	542832	50.000

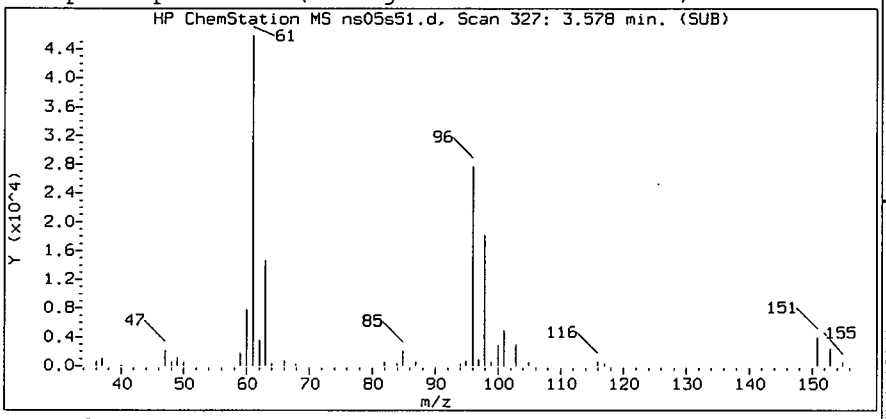
M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

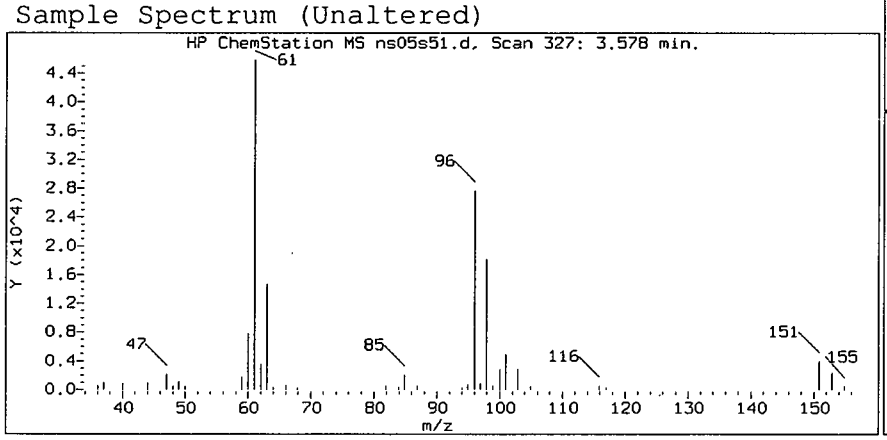
Reference Standard Spectrum for 1,1-Dichloroethene

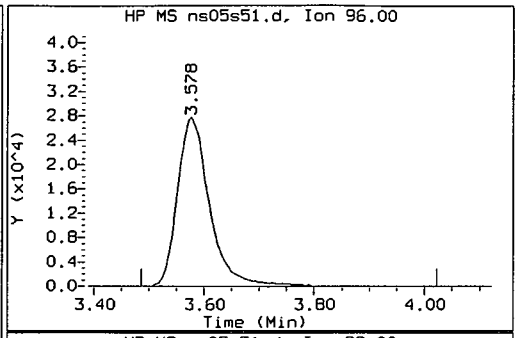


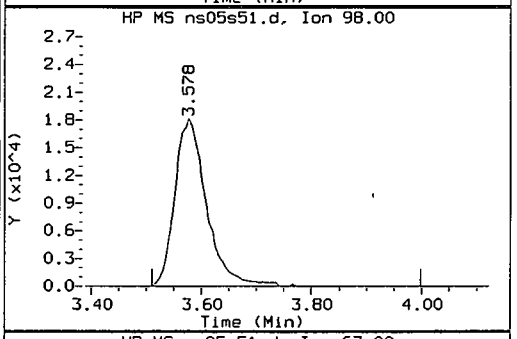
Sample Spectrum (Background Subtracted)

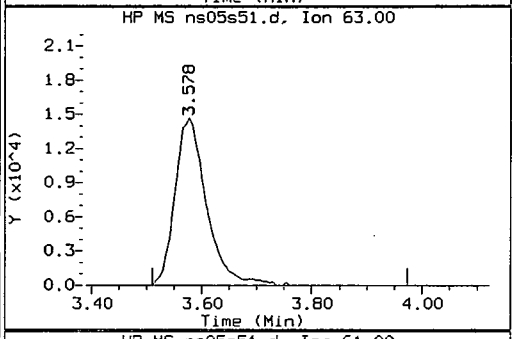


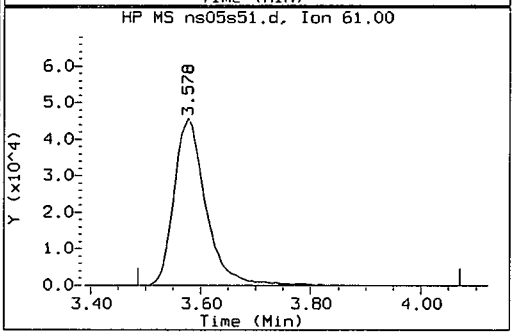
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

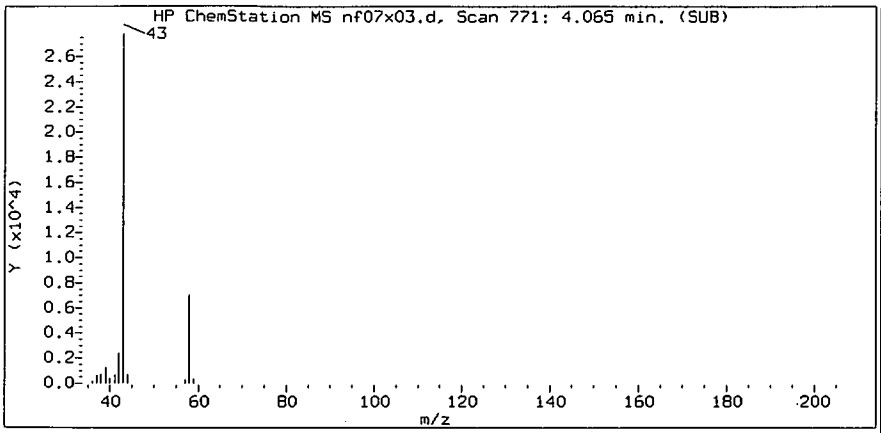
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

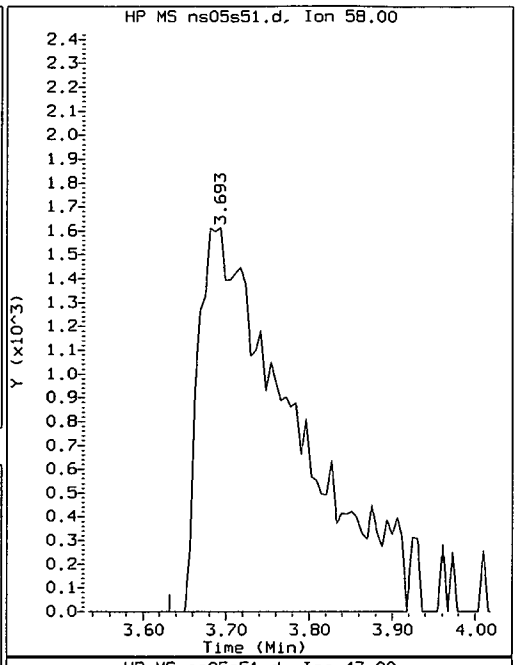
Sample Name: PA18D Lab Sample ID: 6769202

Compound Number : 16
Compound Name : 1,1-Dichloroethene
Scan Number : 327
Retention Time (minutes): 3.578
Relative Retention Time :-0.00023
Quant Ion : 96.00
Area (flag) : 112945
On-Column Amount (ng) : 20.6652

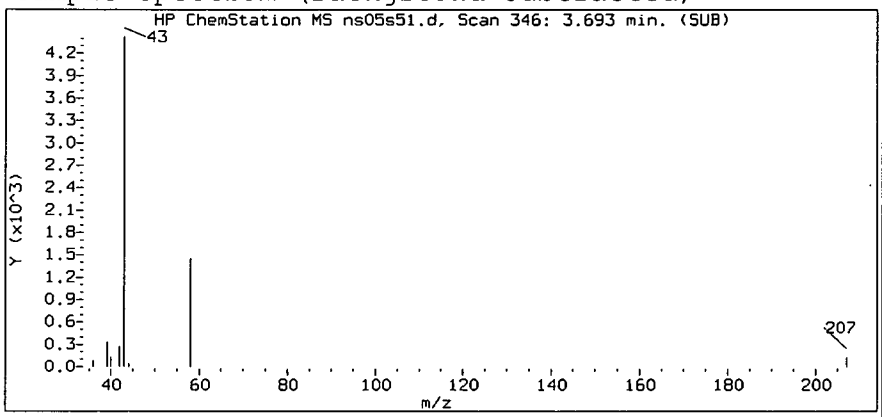
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

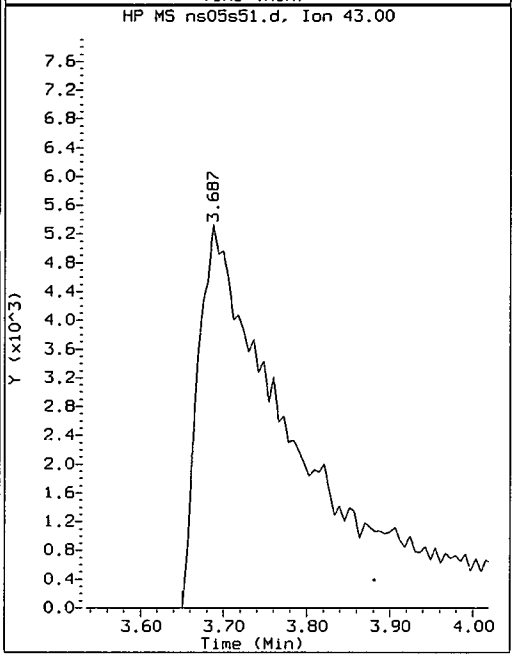
Reference Standard Spectrum for Acetone



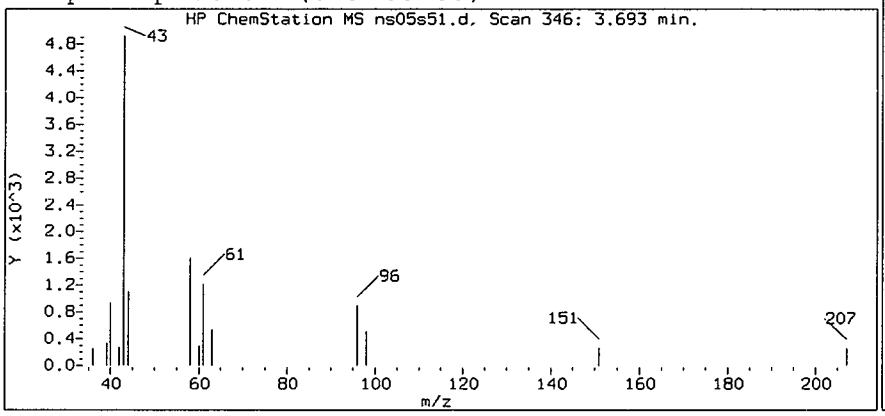


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

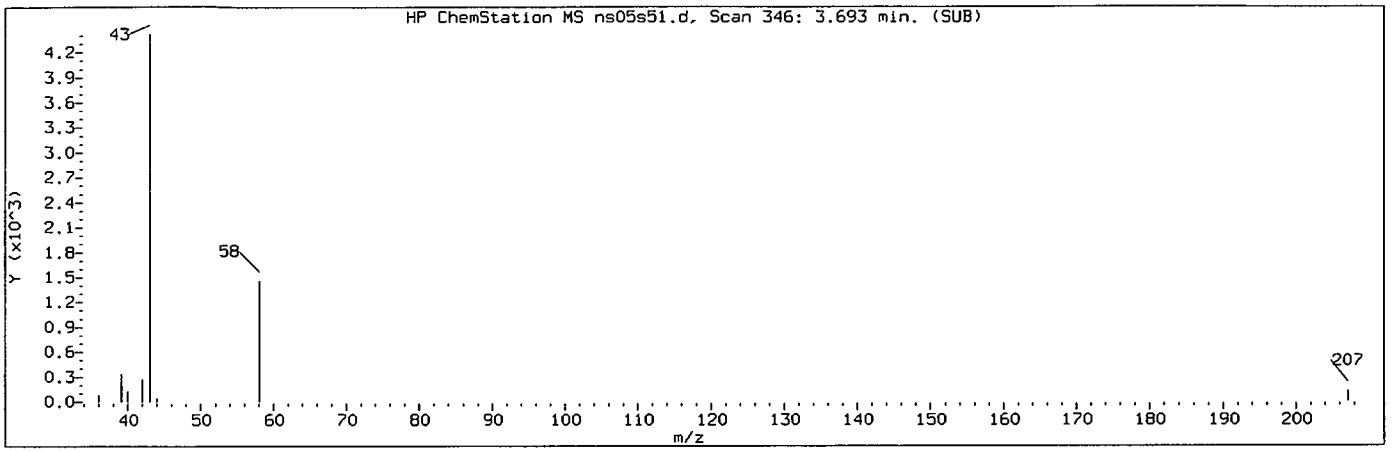
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18D Lab Sample ID: 6769202

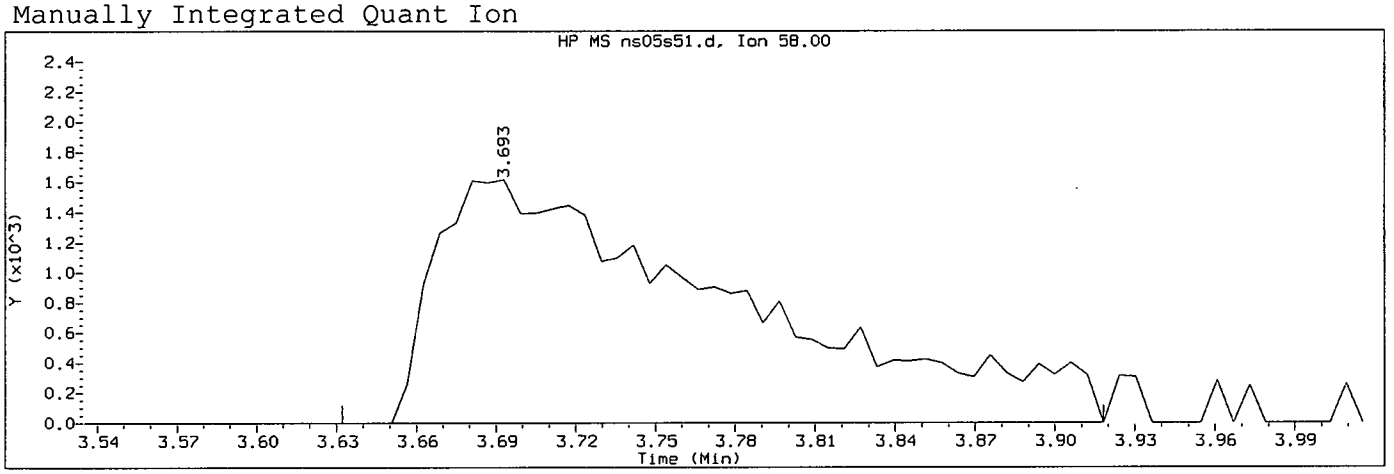
Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 346
Retention Time (minutes)	: 3.693
Relative Retention Time	:-0.00969
Quant Ion	: 58.00
Area (flag)	: 12719M
On-Column Amount (ng)	: 11.2806

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18D Lab Sample ID: 6769202

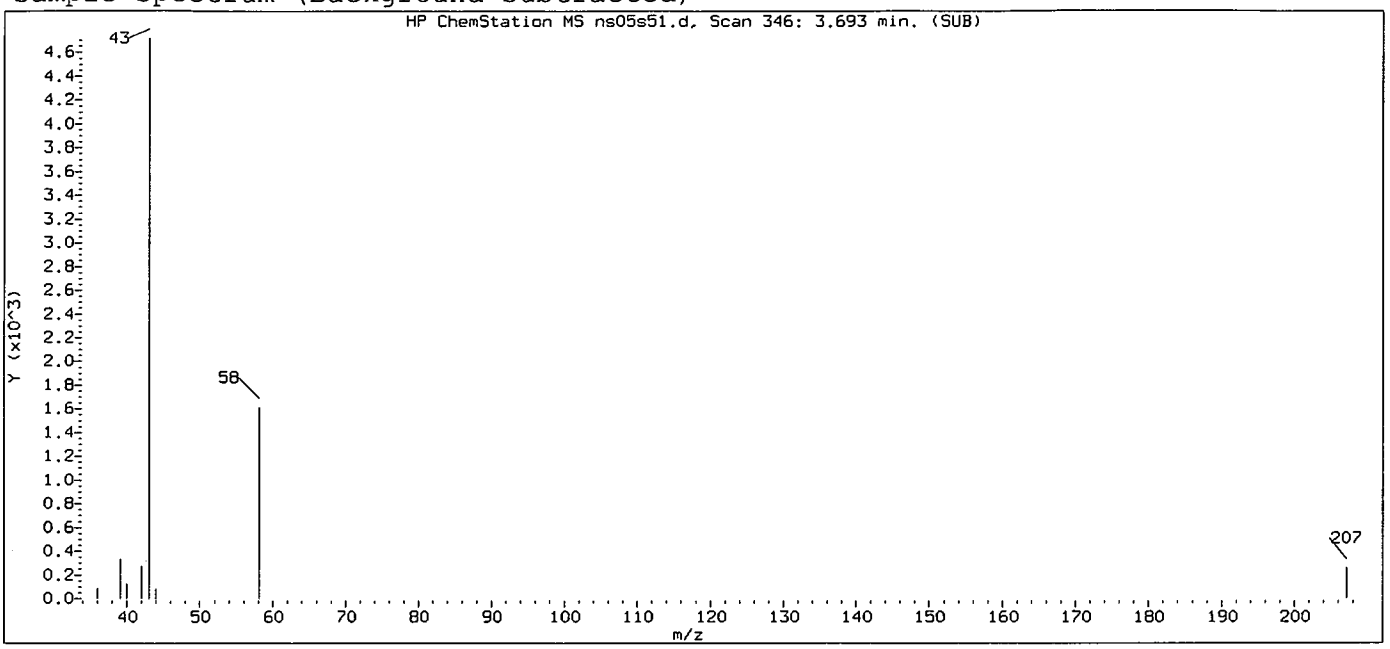
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 346		
Retention Time (minutes)	: 3.693		
Quant Ion	: 58.00		
Area (flag)	: 12719M		
On-Column Amount (ng)	: 11.2806		
Integration start scan	: 335	Integration stop scan:	382
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

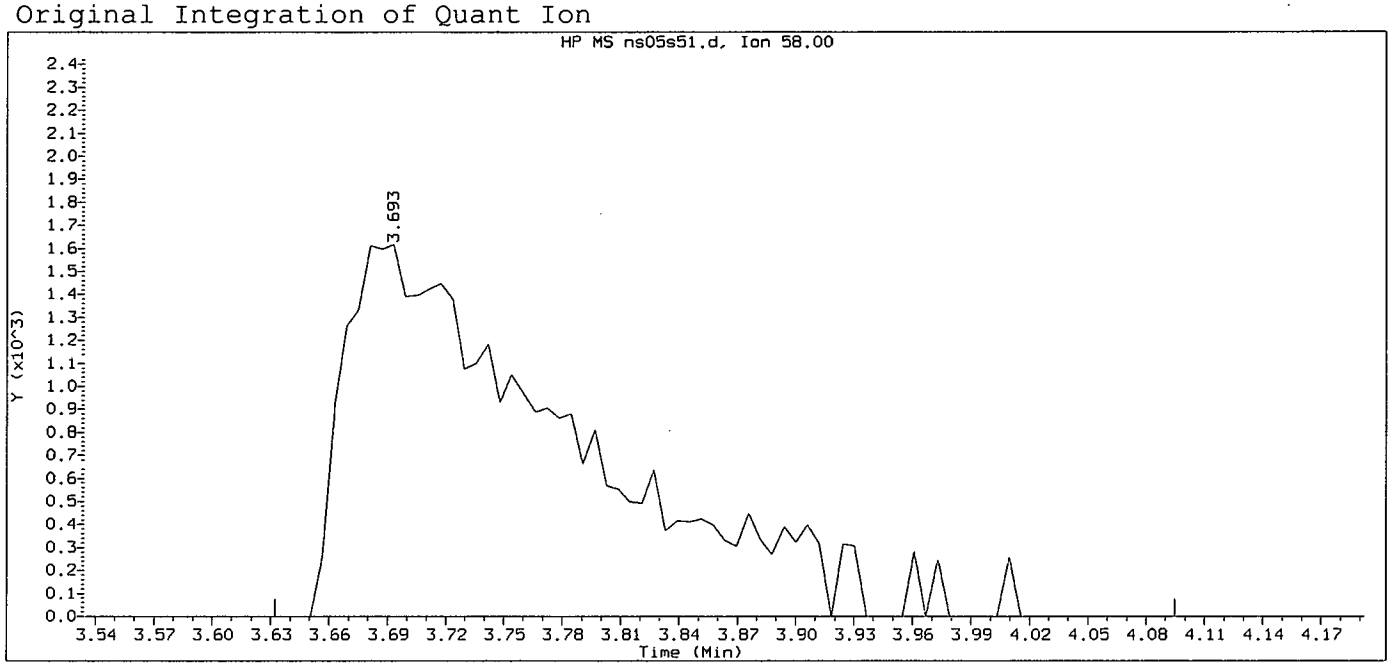
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

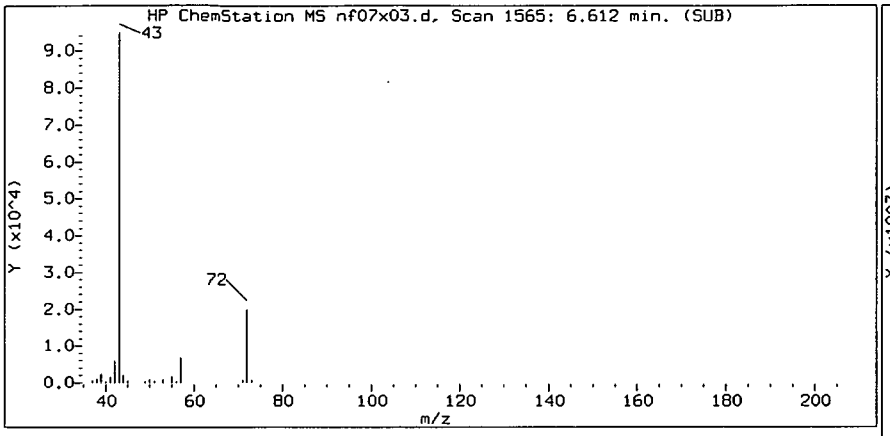
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 21:32 Automation

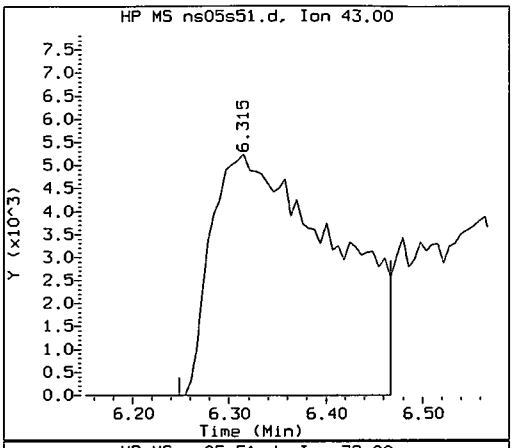
Sample Name: PA18D Lab Sample ID: 6769202

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 346		
Retention Time (minutes)	: 3.693		
Quant Ion	: 58.00		
Area	: 13234		
On-column Amount (ng)	: 11.7382		
Integration start scan	: 335	Integration stop scan:	411
Y at integration start	: 0	Y at integration end:	0

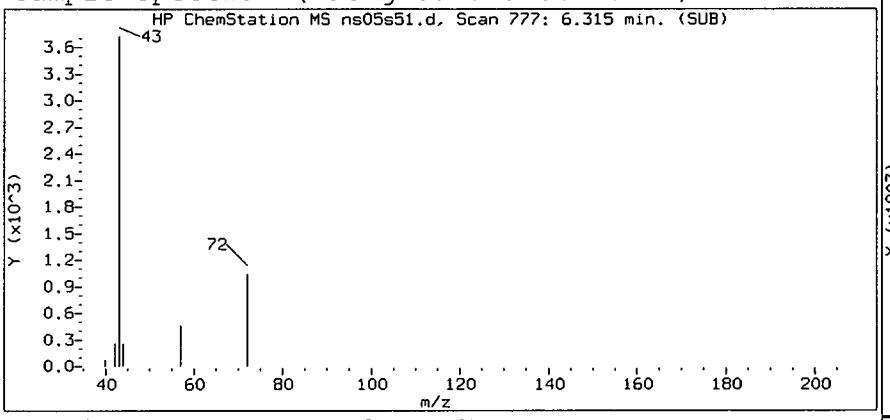
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

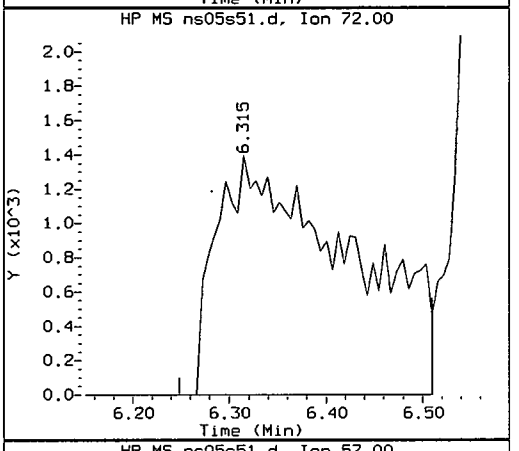
Reference Standard Spectrum for 2-Butanone



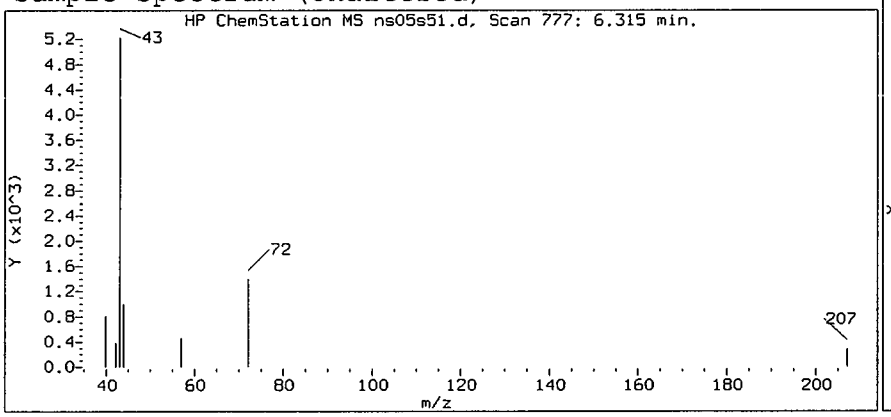


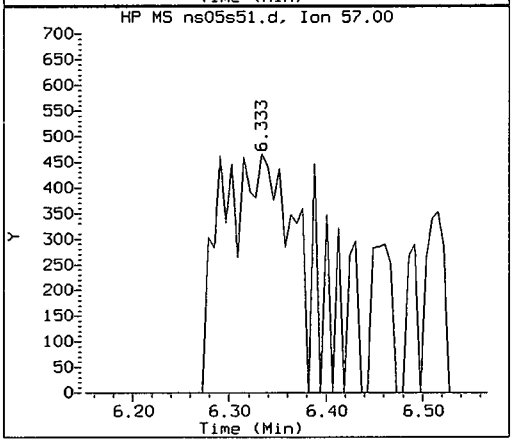
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

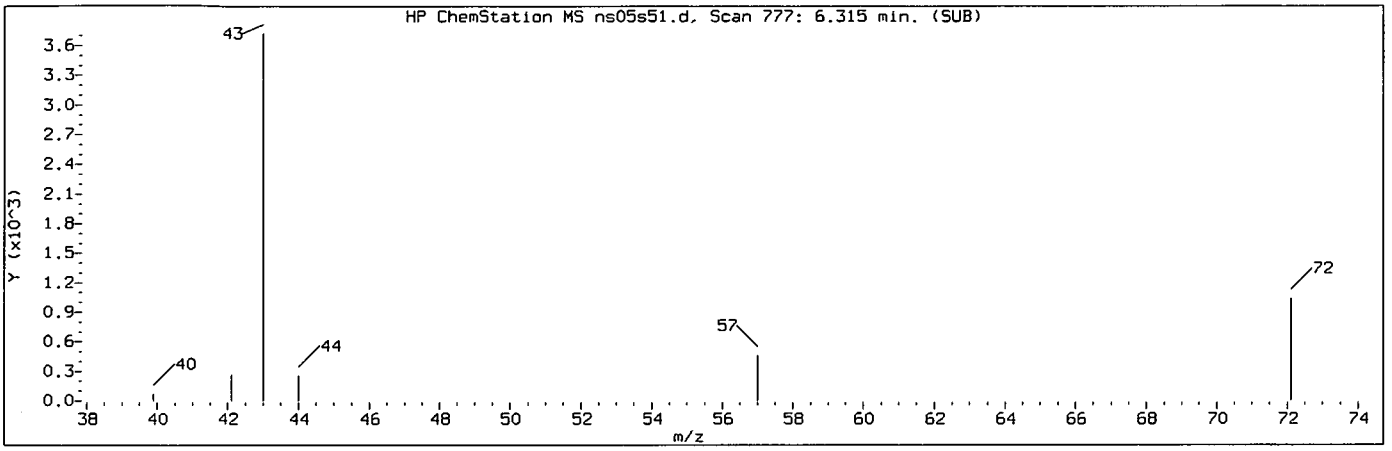
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18D Lab Sample ID: 6769202

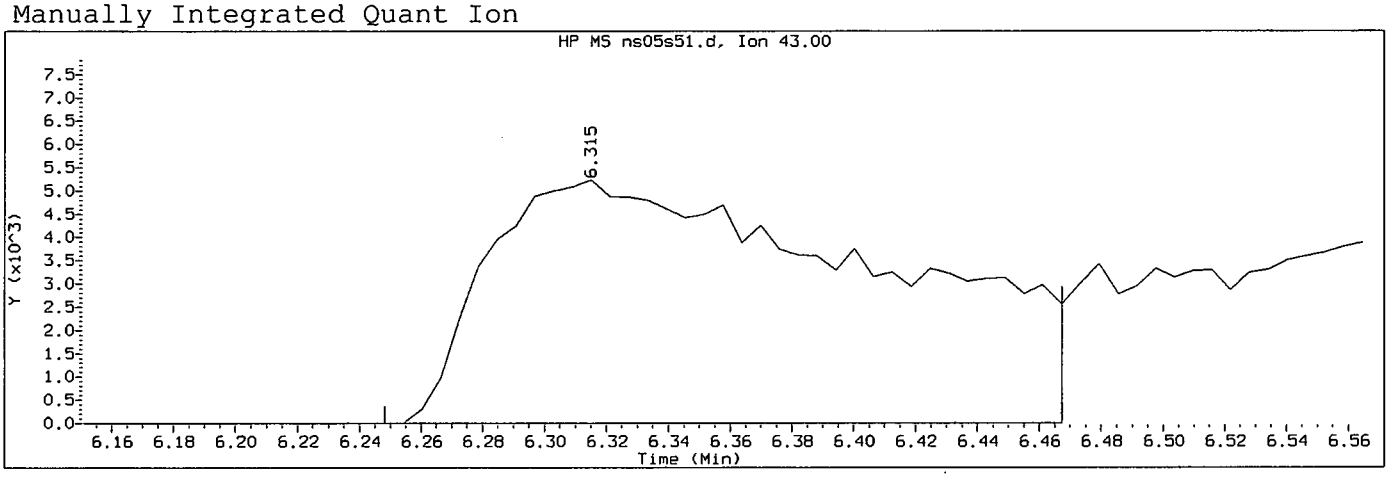
Compound Number : 42
Compound Name : 2-Butanone
Scan Number : 777
Retention Time (minutes): 6.315
Relative Retention Time :-0.02217
Quant Ion : 43.00
Area (flag) : 46159A
On-Column Amount (ng) : 8.6749

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18D Lab Sample ID: 6769202

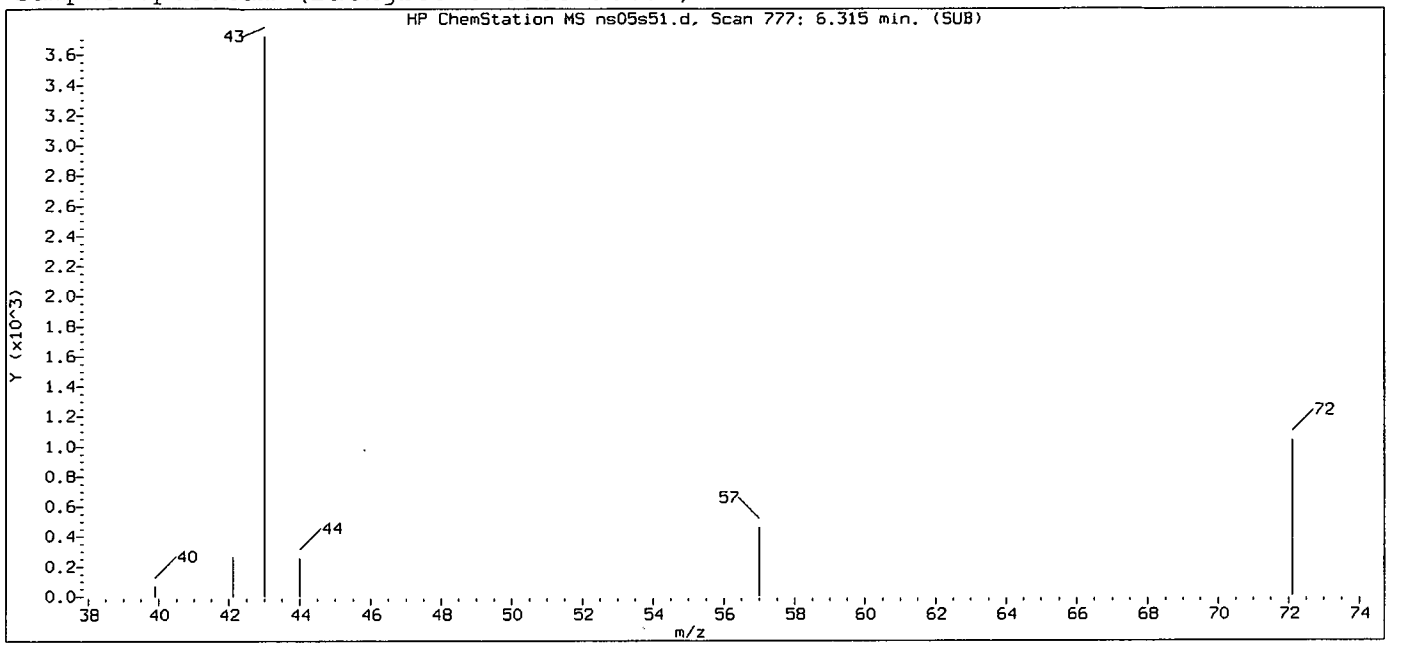
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 777		
Retention Time (minutes)	: 6.315		
Quant Ion	: 43.00		
Area (flag)	: 46159A		
On-Column Amount (ng)	: 8.6749		
Integration start scan	: 765	Integration stop scan:	801
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

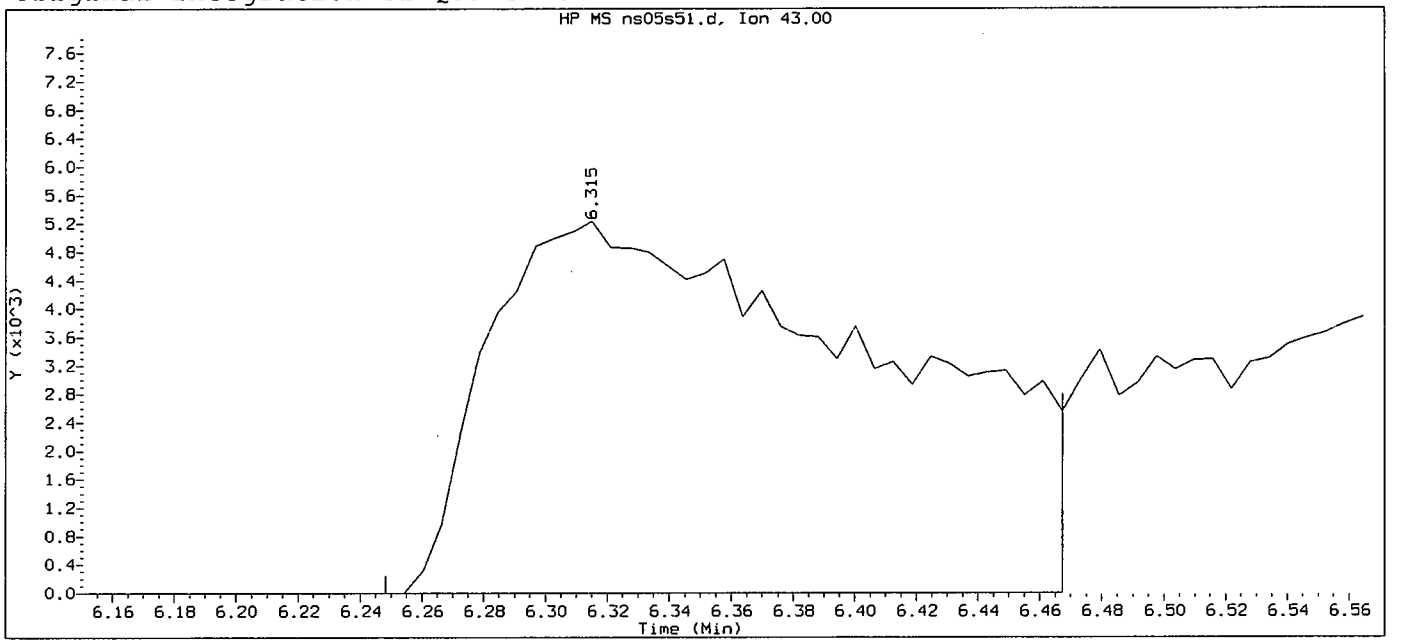
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

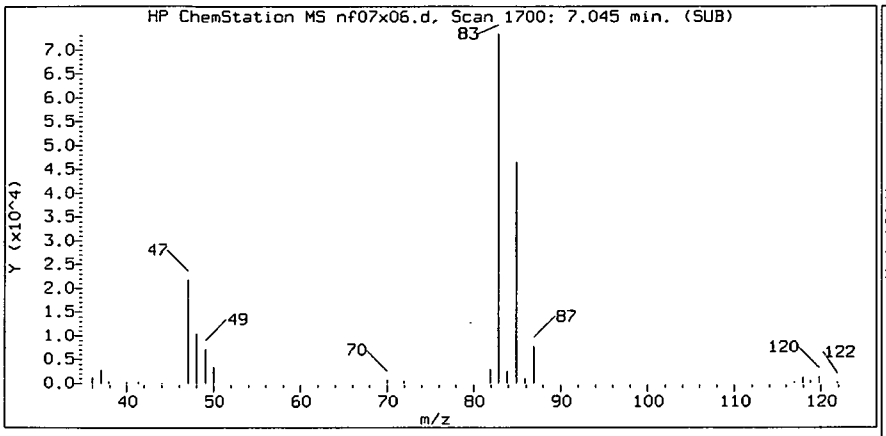
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 21:32 Automation

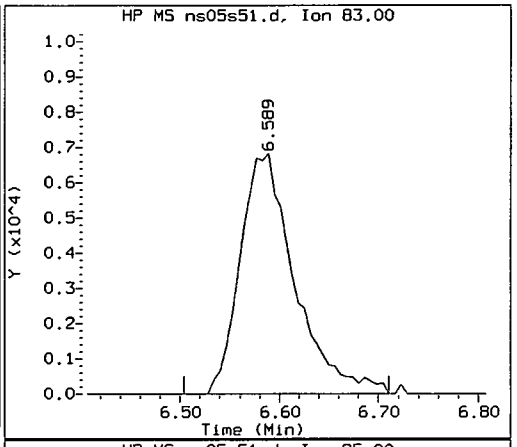
Sample Name: PA18D Lab Sample ID: 6769202

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 777		
Retention Time (minutes)	: 6.315		
Quant Ion	: 43.00		
Area	: 46159		
On-column Amount (ng)	: 8.6750		
Integration start scan	: 765	Integration stop scan:	801
Y at integration start	: 0	Y at integration end:	0

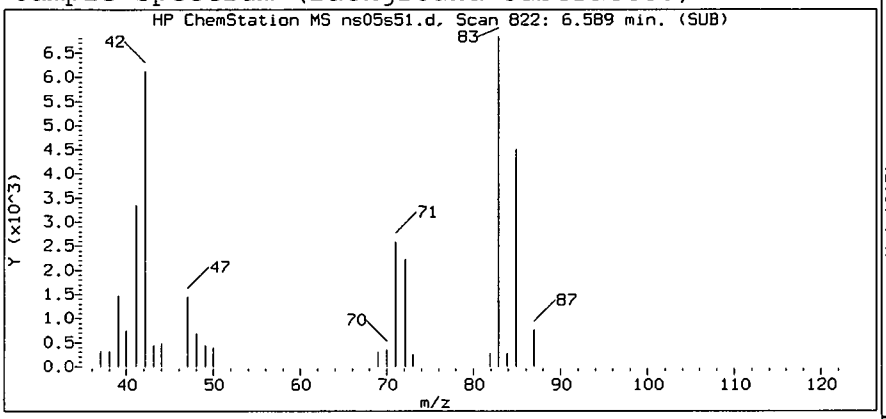
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

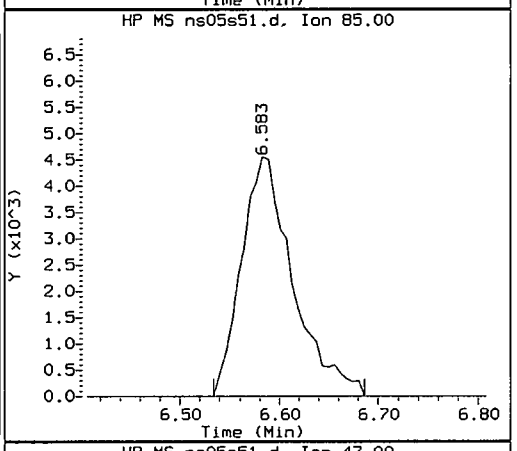
Reference Standard Spectrum for Chloroform



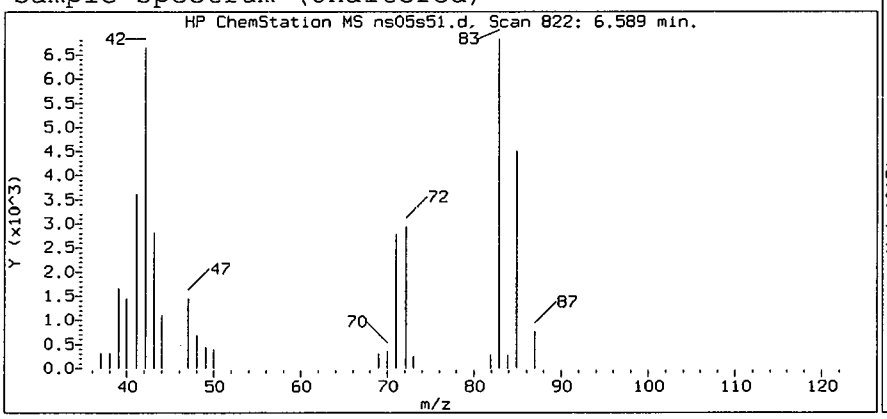


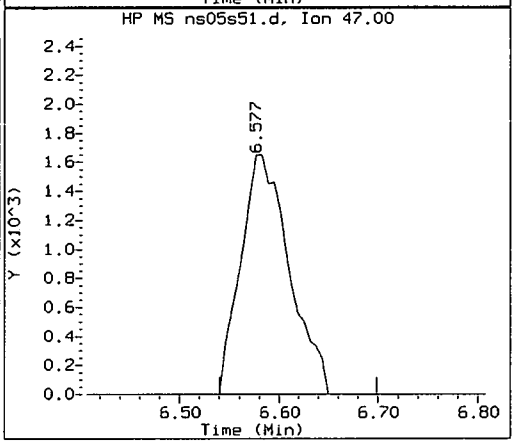
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

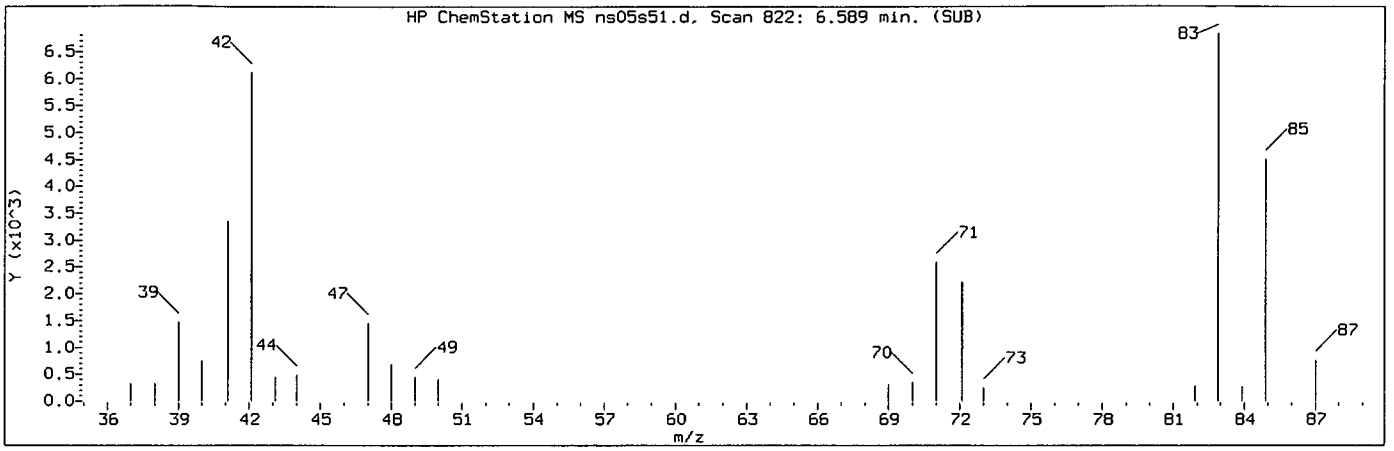
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18D Lab Sample ID: 6769202

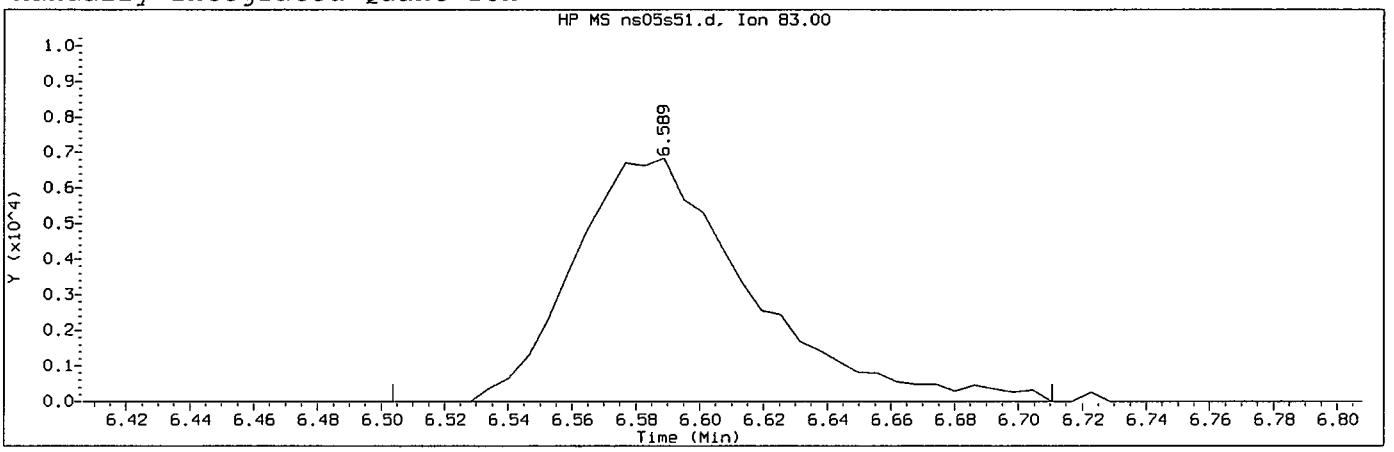
Compound Number	: 50
Compound Name	: Chloroform
Scan Number	: 822
Retention Time (minutes)	: 6.589
Relative Retention Time	:-0.00322
Quant Ion	: 83.00
Area (flag)	: 26205M
On-Column Amount (ng)	: 2.3128

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:34 sag03174

Sample Name: PA18D Lab Sample ID: 6769202

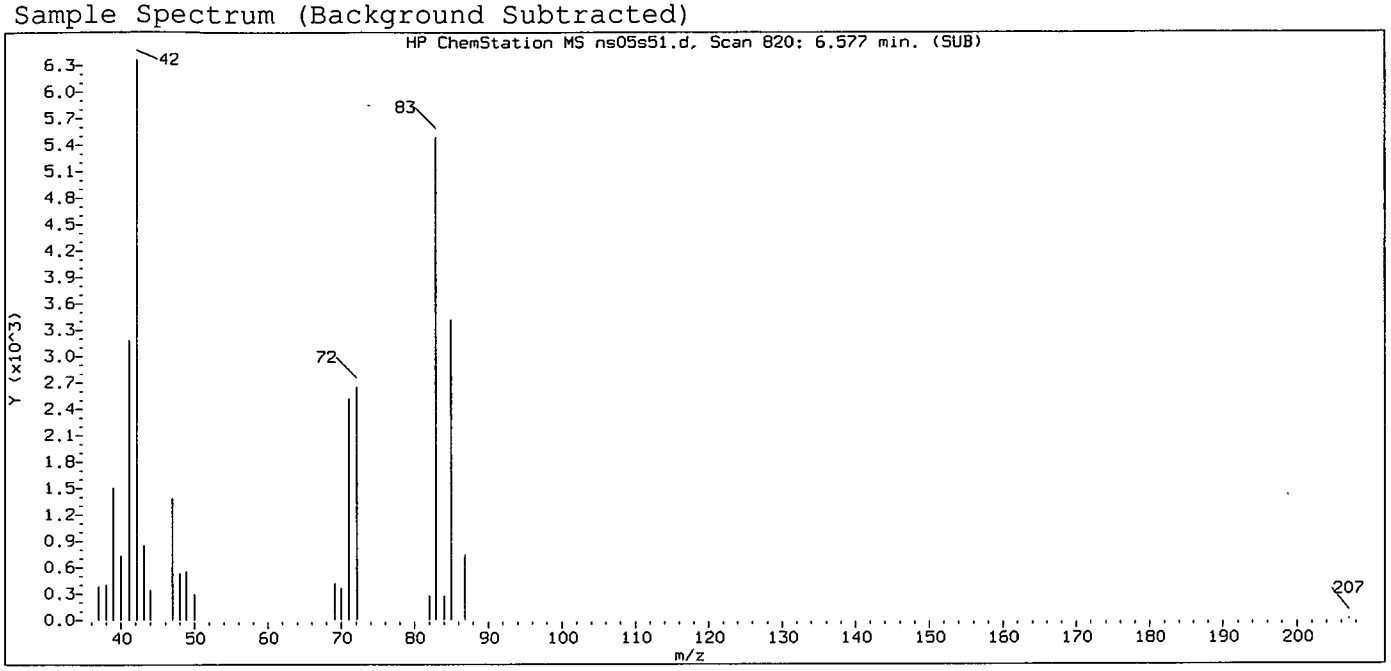
Compound Number	: 50		
Compound Name	: Chloroform		
Scan Number	: 822		
Retention Time (minutes)	: 6.589		
Quant Ion	: 83.00		
Area (flag)	: 26205M		
On-Column Amount (ng)	: 2.3128		
Integration start scan	: 807	Integration stop scan:	841
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

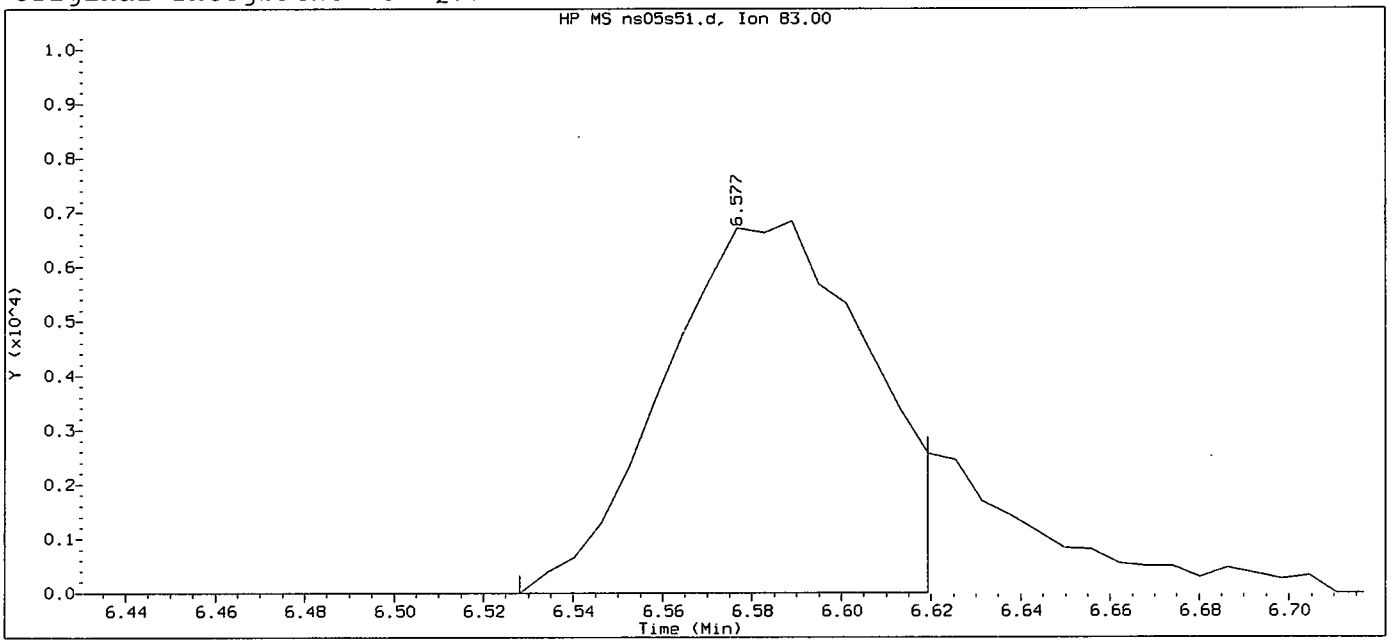
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s51.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:12 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 21:32 Automation

Sample Name: PA18D Lab Sample ID: 6769202

Compound Number	: 50		
Compound Name	: Chloroform		
Scan Number	: 820		
Retention Time (minutes)	: 6.577		
Quant Ion	: 83.00		
Area	: 21509		
On-column Amount (ng)	: 1.8984		
Integration start scan	: 811	Integration stop scan:	826
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA20S

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769203

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s52.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
67-64-1	Acetone	14	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	9	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA20S

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769203

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s52.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
142-28-9	1,3-Dichloropropane	5	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
108-90-7	Chlorobenzene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
100-41-4	Ethylbenzene	5	U
179601-23-1	m+p-Xylene	5	U
95-47-6	o-Xylene	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
98-82-8	Isopropylbenzene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-86-1	Bromobenzene	5	U
96-18-4	1,2,3-Trichloropropane	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
106-43-4	4-Chlorotoluene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
96-12-8	1,2-Dibromo-3-Chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA20S

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769203

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s52.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PA20S

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769203

Data file: /chem/HP07159.i/12sep05b.b/ns05s52.d
Injection date and time: **05-SEP-2012 21:36**
Data file Sample Info. Line: PA20S;6769203;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.256	(-0.018)	438	65	308957	(-19)	250.00	
70) Fluorobenzene	7.717	(-0.006)	1007	96	1309650	(-13)	50.00	
98) Chlorobenzene-d5	11.178	(-0.012)	1576	117	946375	(-11)	50.00	
130) 1,4-Dichlorobenzene-d4	13.064	(-0.036)	1886	152	534443	(-15)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.792	(0.000)	113	311554	53.219	106%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.255	(0.000)	102	82145	52.462	105%		77 - 113
86) Toluene-d8	(2)	9.731	(0.000)	98	1262450	47.679	95%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.182	(-0.001)	95	457181	47.491	95%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)				Not Detected					0.8	5
19) Acetone	(1)	3.672	(-0.006)	58	15763M	14.342	14.34		J	6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)				Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)	6.318	(-0.022)	43	46165MA	8.901	8.90		J	3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35. Target 3.5 esignature user ID: sag03174

PA20S

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769203

Data file: /chem/HP07159.i/12sep05b.b/ns05s52.d
Injection date and time: **05-SEP-2012 21:36**
Data file Sample Info. Line: PA20S;6769203;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

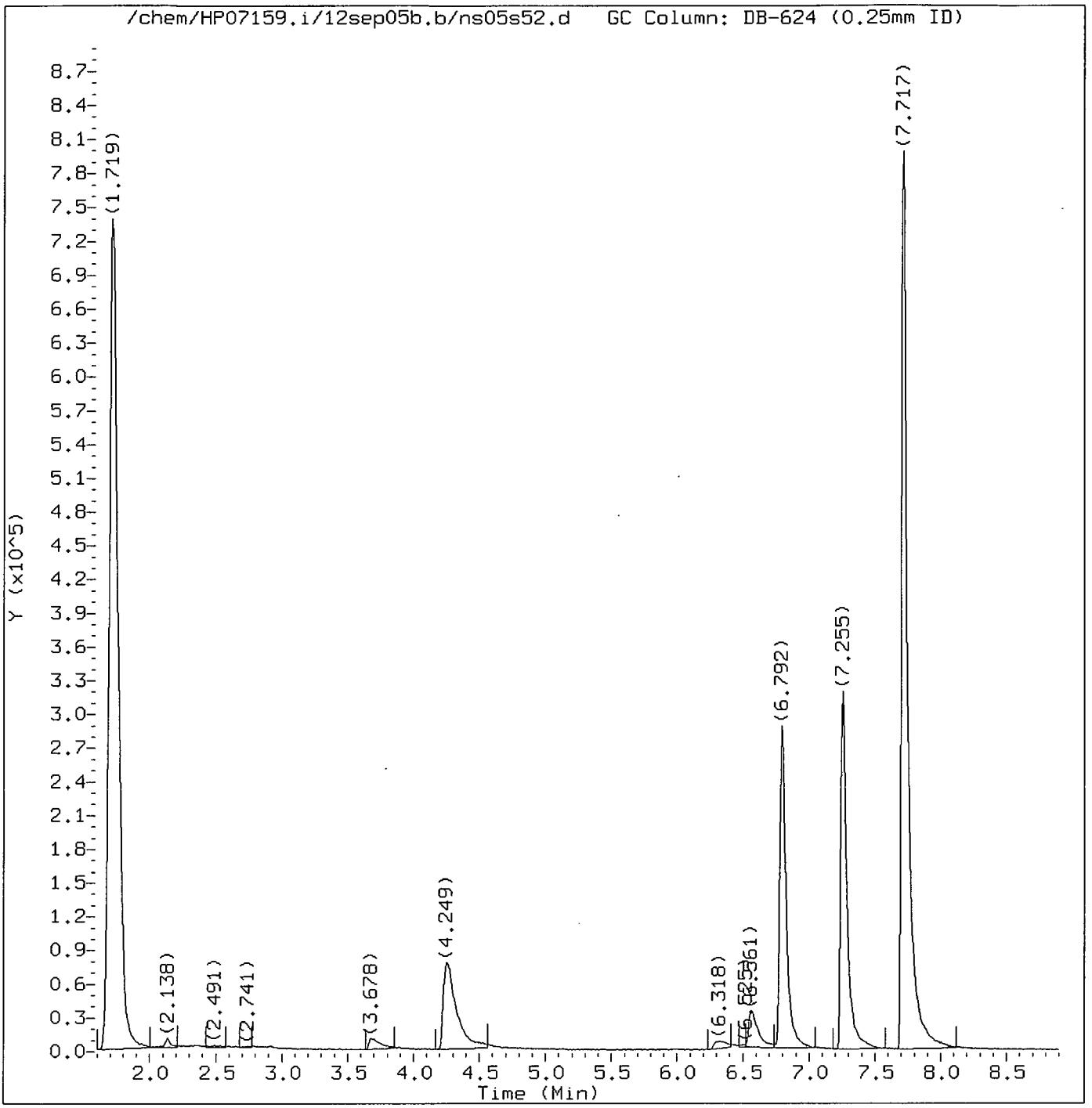
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
93) Tetrachloroethene	(2)			Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)			Not Detected					1	5
96) Dibromochloromethane	(2)			Not Detected					1	5
97) 1,2-Dibromoethane	(2)			Not Detected					1	5
100) Chlorobenzene	(2)			Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)			Not Detected					1	5
102) Ethylbenzene	(2)			Not Detected					0.8	5
103) m+p-Xylene	(2)			Not Detected					0.8	5
106) o-Xylene	(2)			Not Detected					0.8	5
109) Styrene	(2)			Not Detected					1	5
110) Bromoform	(2)			Not Detected					1	5
111) Isopropylbenzene	(2)			Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)			Not Detected					1	5
117) Bromobenzene	(3)			Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)			Not Detected					1	5
120) n-Propylbenzene	(3)			Not Detected					1	5
121) 2-Chlorotoluene	(3)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)			Not Detected					1	5
123) 4-Chlorotoluene	(3)			Not Detected					1	5
124) tert-Butylbenzene	(3)			Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)			Not Detected					1	5
127) sec-Butylbenzene	(3)			Not Detected					1	5
128) p-Isopropyltoluene	(3)			Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)			Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)			Not Detected					1	5
136) n-Butylbenzene	(3)			Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)			Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)			Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)			Not Detected					1	5
141) Hexachlorobutadiene	(3)			Not Detected					2	5
142) Naphthalene	(3)			Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)			Not Detected					1	5

Total number of targets = 63

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

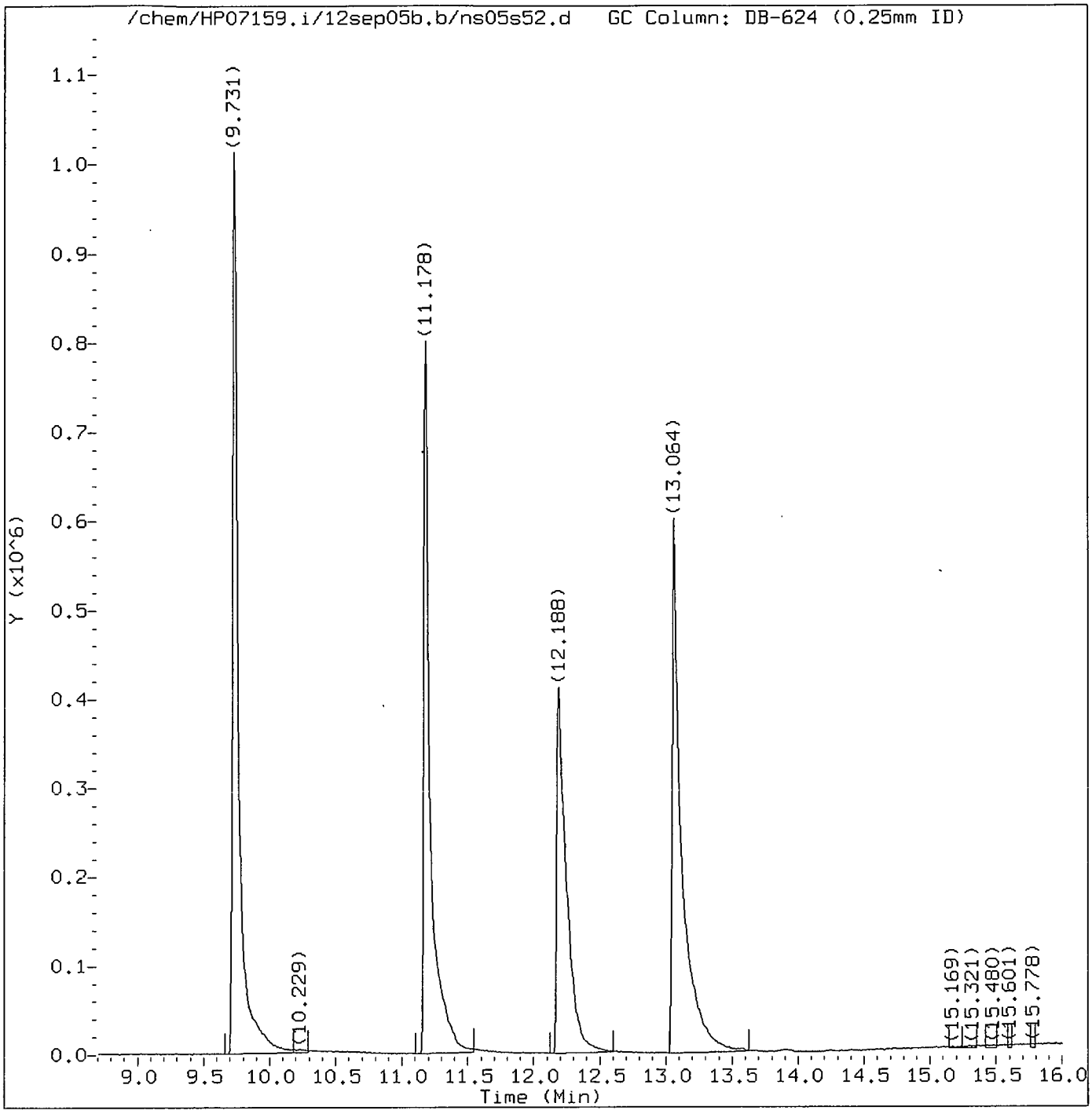
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s52.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:36 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20S Lab Sample ID: 6769203

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s52.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:36 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20S Lab Sample ID: 6769203

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s52.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:36 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

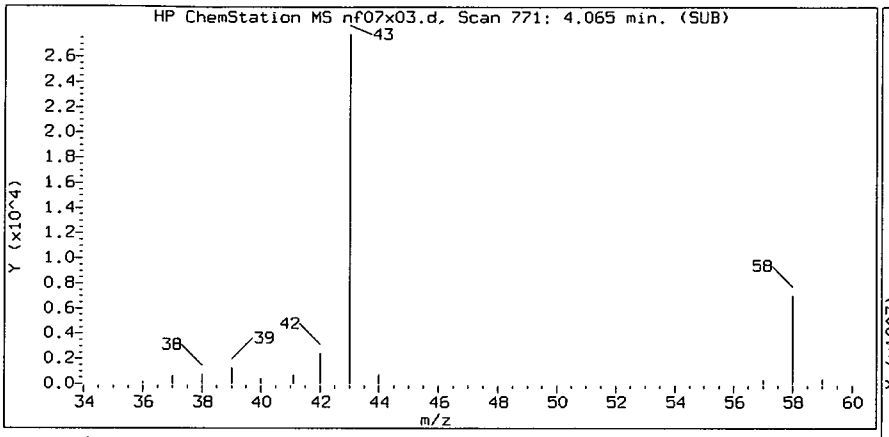
Sample Name: PA20S Lab Sample ID: 6769203

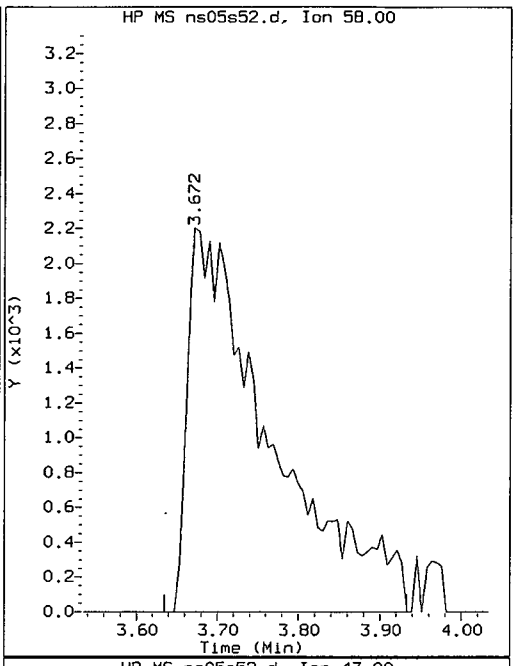
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
19) Acetone	(1)	3.672	58	15763M	14.342
26)*t-Butyl Alcohol-d10	(4)	4.256	65	308957	250.000
42) 2-Butanone	(1)	6.318	43	46165MA	8.901
51)$Dibromofluoromethane	(1)	6.792	113	311554	53.219
62)$1,2-Dichloroethane-d4	(1)	7.255	102	82145	52.462
70)*Fluorobenzene	(1)	7.717	96	1309650	50.000
86)$Toluene-d8	(2)	9.731	98	1262450	47.679
98)*Chlorobenzene-d5	(2)	11.178	117	946375	50.000
114)$4-Bromofluorobenzene	(2)	12.182	95	457181	47.491
130)*1,4-Dichlorobenzene-d4	(3)	13.064	152	534443	50.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

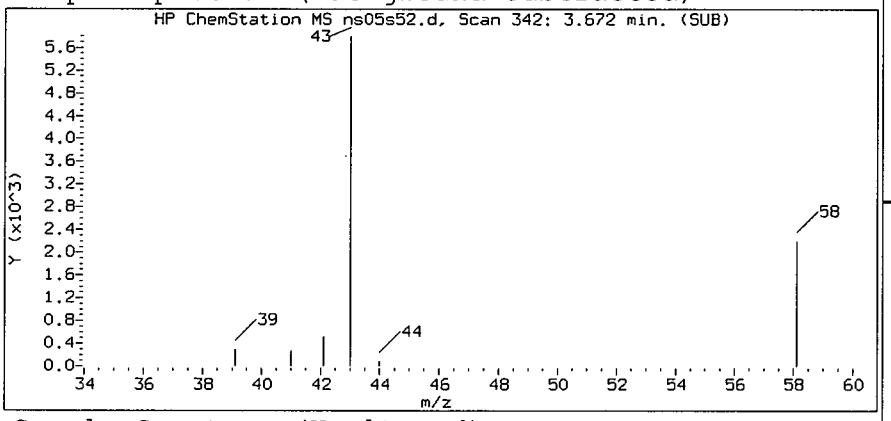
Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

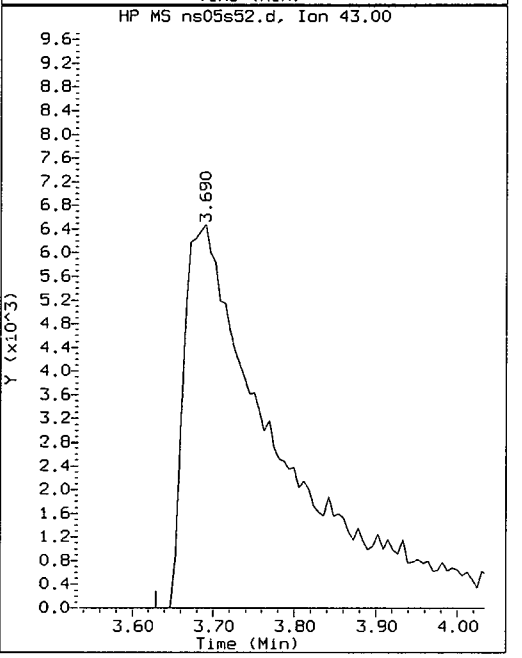
Reference Standard Spectrum for Acetone



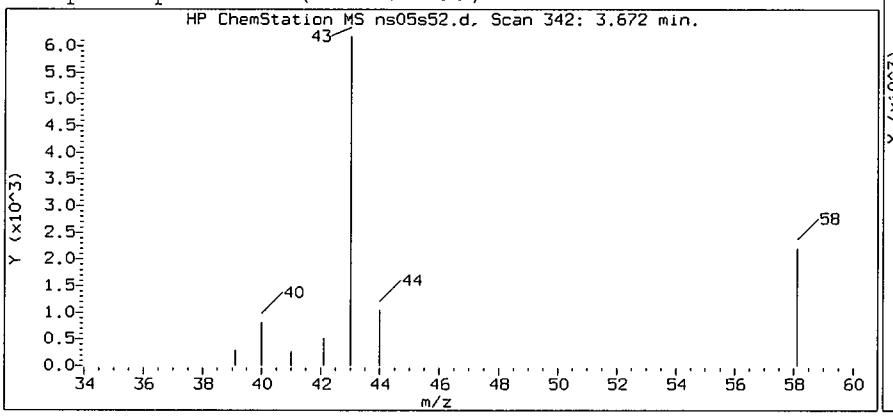


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s52.d
Injection date and time: 05-SEP-2012 21:36

Instrument ID: HP07159.i
Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sublist used: 8732

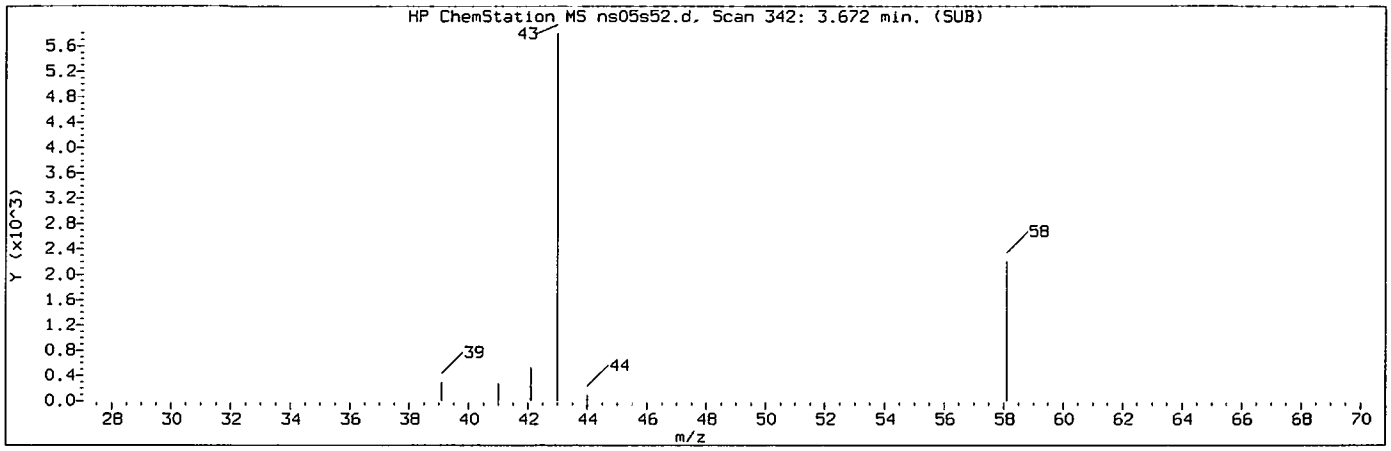
Sample Name: PA20S

Lab Sample ID: 6769203

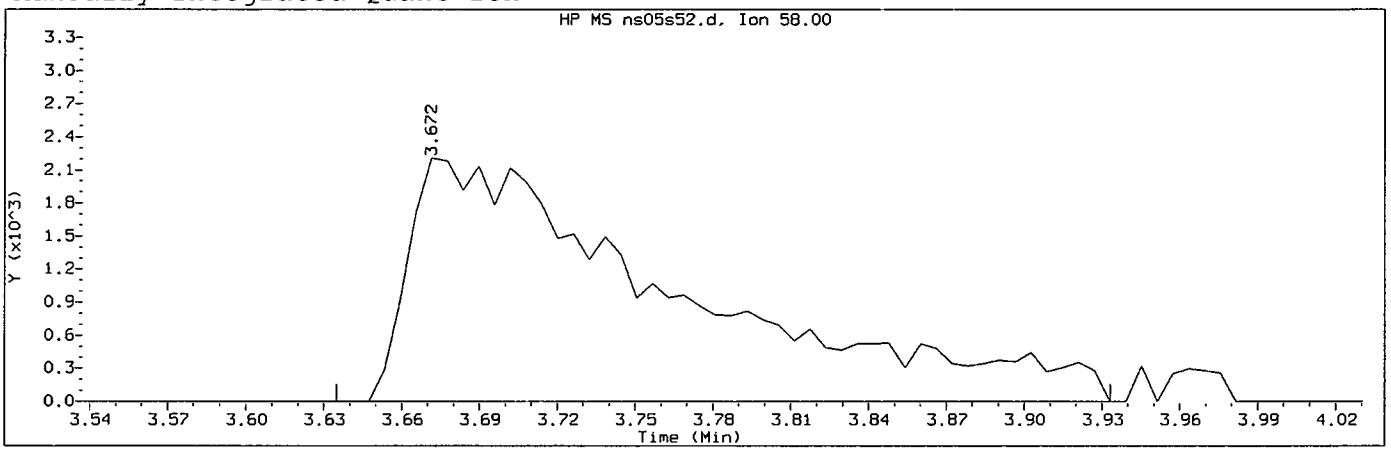
Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 342
Retention Time (minutes)	: 3.672
Relative Retention Time	:-0.00672
Quant Ion	: 58.00
Area (flag)	: 15763M
On-Column Amount (ng)	: 14.3422

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s52.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:36 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20S Lab Sample ID: 6769203

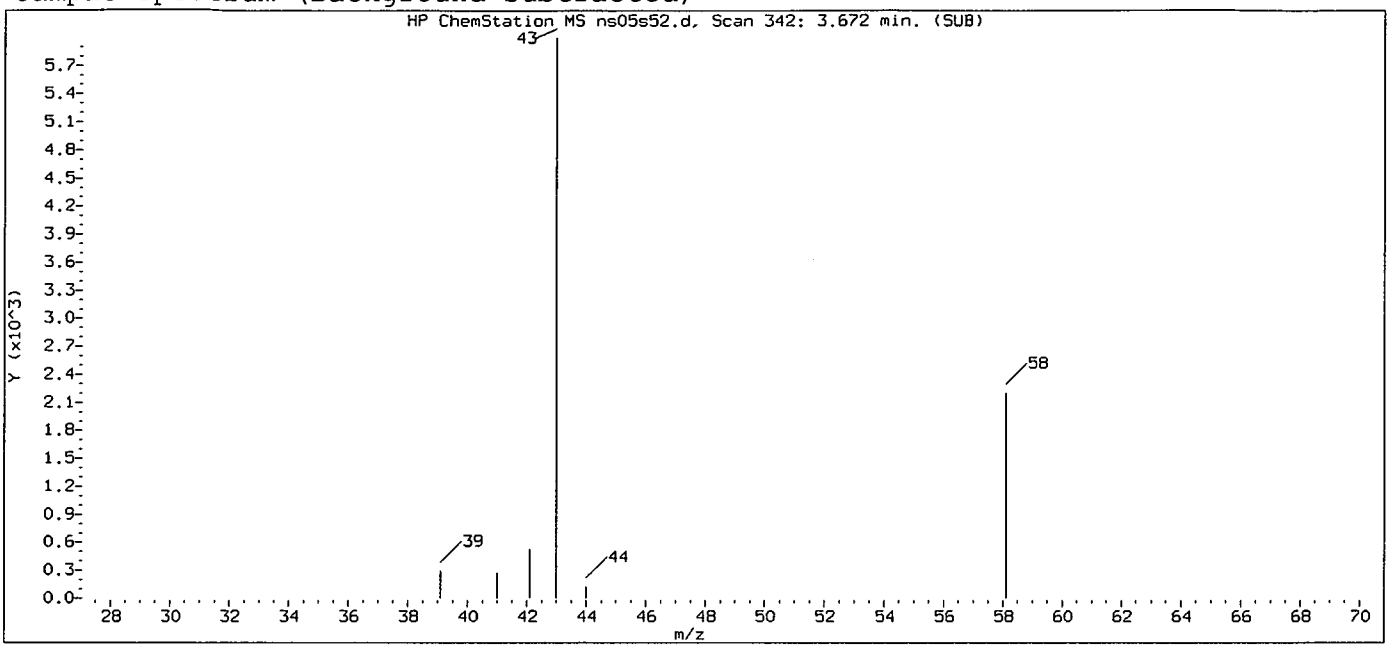
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 342		
Retention Time (minutes)	: 3.672		
Quant Ion	: 58.00		
Area (flag)	: 15763M		
On-Column Amount (ng)	: 14.3422		
Integration start scan	: 335	Integration stop scan:	384
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

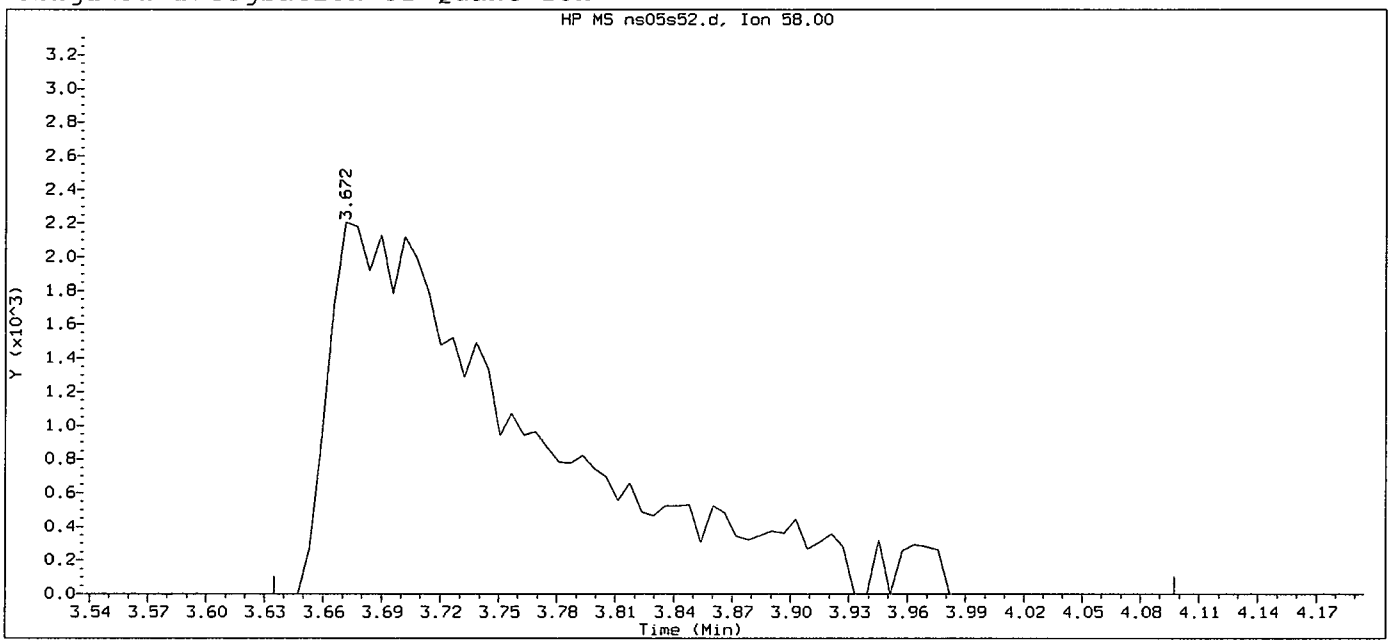
Analyst responsible for change: Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35. Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s52.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:36 Analyst ID: ERS02237

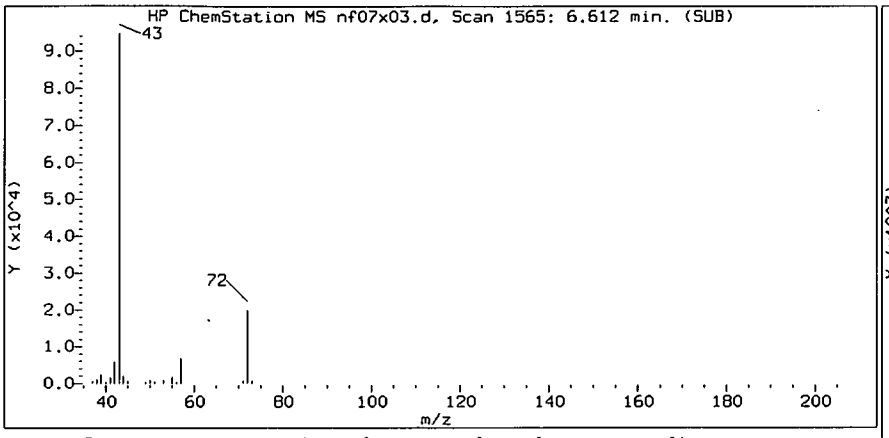
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 21:56 Automation

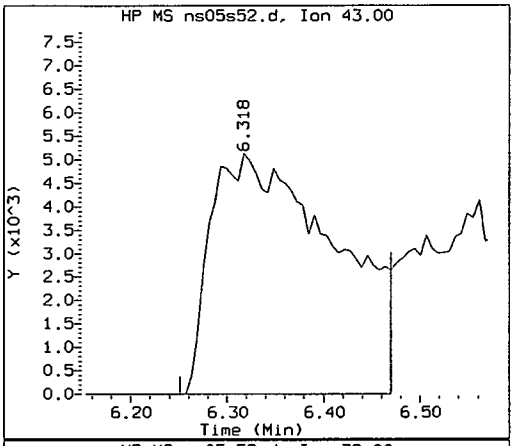
Sample Name: PA20S Lab Sample ID: 6769203

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 342		
Retention Time (minutes)	: 3.672		
Quant Ion	: 58.00		
Area	: 16280		
On-column Amount (ng)	: 14.8131		
Integration start scan	: 335	Integration stop scan:	411
Y at integration start	: 0	Y at integration end:	0

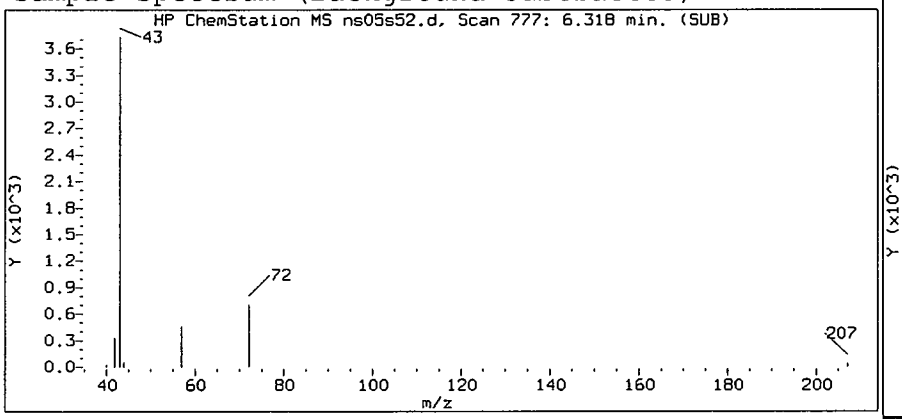
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

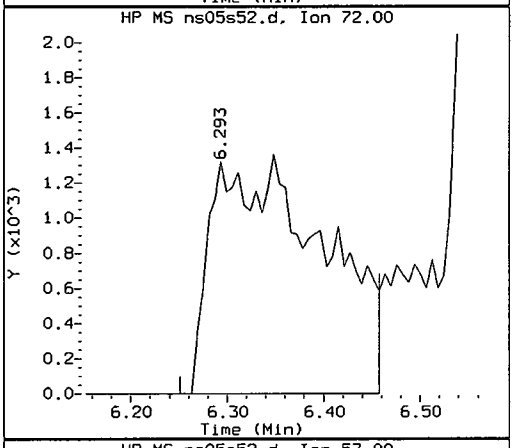
Reference Standard Spectrum for 2-Butanone



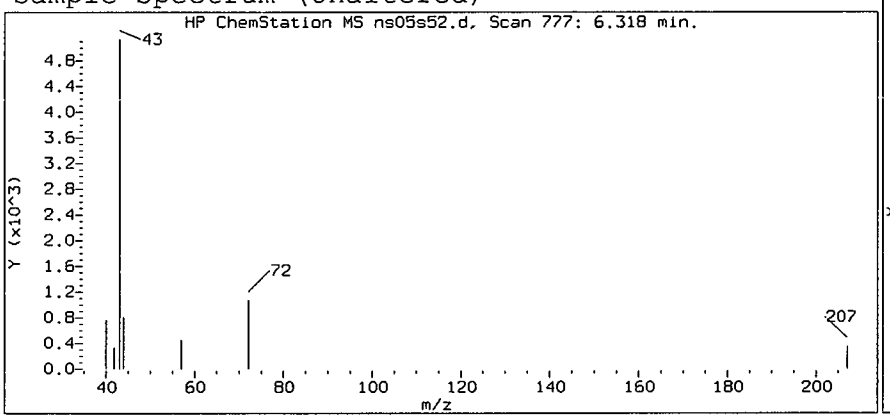


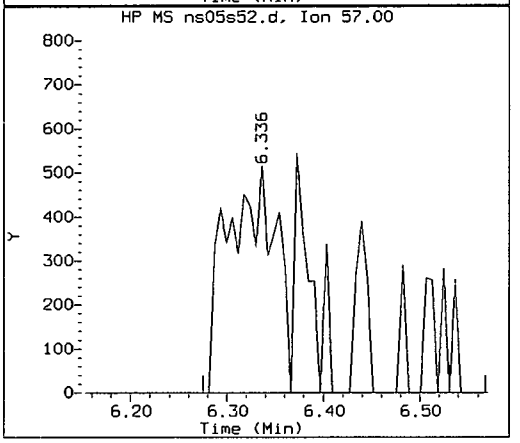
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s52.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:36 Analyst ID: ERS02237

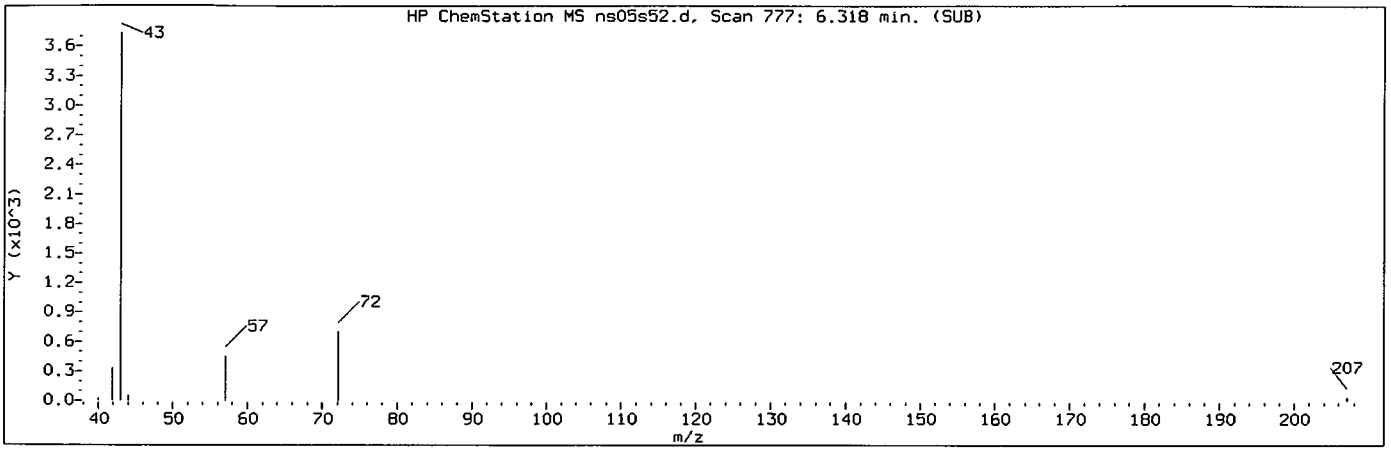
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20S Lab Sample ID: 6769203

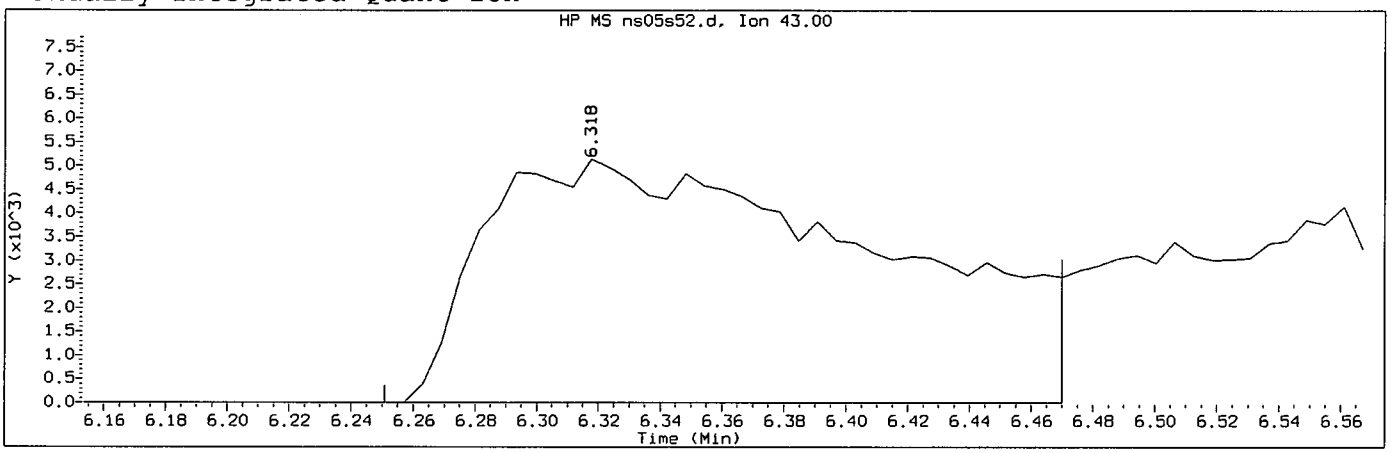
Compound Number	: 42
Compound Name	: 2-Butanone
Scan Number	: 777
Retention Time (minutes)	: 6.318
Relative Retention Time	:-0.02223
Quant Ion	: 43.00
Area (flag)	: 46165AM
On-Column Amount (ng)	: 8.9008

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s52.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:36 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20S Lab Sample ID: 6769203

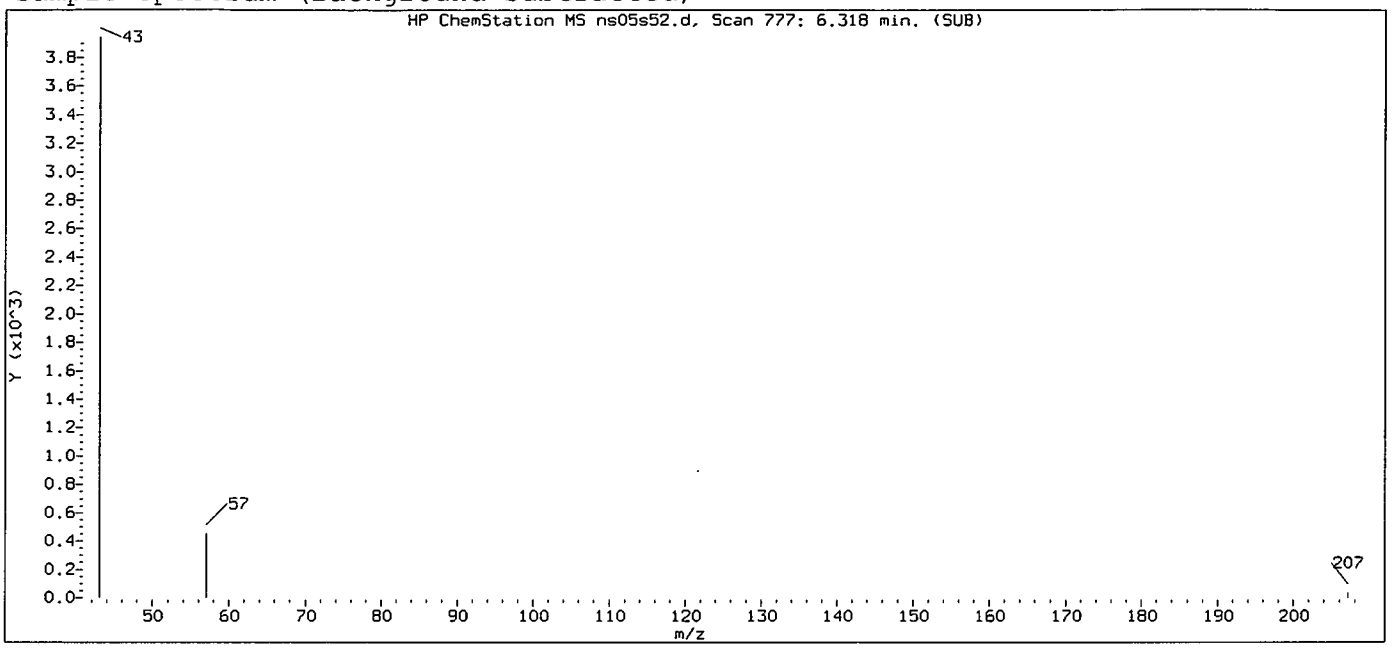
Compound Number : 42
Compound Name : 2-Butanone
Scan Number : 777
Retention Time (minutes): 6.318
Quant Ion : 43.00
Area (flag) : 46165AM
On-Column Amount (ng) : 8.9008
Integration start scan : 765 Integration stop scan: 801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

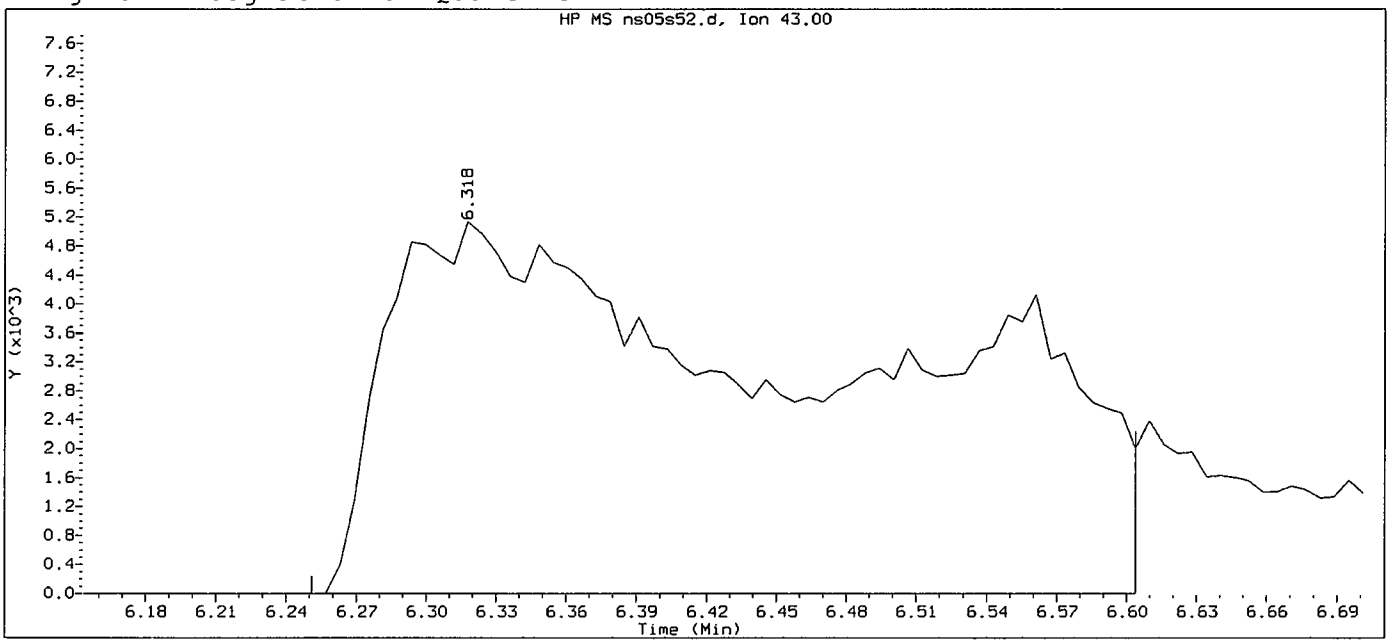
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s52.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:36 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 21:56 Automation

Sample Name: PA20S Lab Sample ID: 6769203

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 777		
Retention Time (minutes)	: 6.318		
Quant Ion	: 43.00		
Area	: 70612		
On-column Amount (ng)	: 13.6140		
Integration start scan	: 765	Integration stop scan:	823
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA20D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769204

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s53.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	5	U
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	7	
67-64-1	Acetone	6	J
75-09-2	Methylene Chloride	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
1634-04-4	Methyl Tertiary Butyl Ether	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	6	J
594-20-7	2,2-Dichloropropane	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon Tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
74-95-3	Dibromomethane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA20D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769204

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s53.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		5	U
127-18-4	Tetrachloroethene		5	U
142-28-9	1,3-Dichloropropane		5	U
124-48-1	Dibromochloromethane		5	U
106-93-4	1,2-Dibromoethane		5	U
108-90-7	Chlorobenzene		5	U
630-20-6	1,1,1,2-Tetrachloroethane		5	U
100-41-4	Ethylbenzene		5	U
179601-23-1	m+p-Xylene		5	U
95-47-6	o-Xylene		5	U
100-42-5	Styrene		5	U
75-25-2	Bromoform		5	U
98-82-8	Isopropylbenzene		5	U
79-34-5	1,1,2,2-Tetrachloroethane		5	U
108-86-1	Bromobenzene		5	U
96-18-4	1,2,3-Trichloropropane		5	U
103-65-1	n-Propylbenzene		5	U
95-49-8	2-Chlorotoluene		5	U
108-67-8	1,3,5-Trimethylbenzene		5	U
106-43-4	4-Chlorotoluene		5	U
98-06-6	tert-Butylbenzene		5	U
95-63-6	1,2,4-Trimethylbenzene		5	U
135-98-8	sec-Butylbenzene		5	U
99-87-6	p-Isopropyltoluene		5	U
541-73-1	1,3-Dichlorobenzene		5	U
106-46-7	1,4-Dichlorobenzene		5	U
104-51-8	n-Butylbenzene		5	U
95-50-1	1,2-Dichlorobenzene		5	U
96-12-8	1,2-Dibromo-3-Chloropropane		5	U
120-82-1	1,2,4-Trichlorobenzene		5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PA20D

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769204

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s53.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	5	U
91-20-3	Naphthalene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

PA20D

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769204

Data file: /chem/HP07159.i/12sep05b.b/ns05s53.d Injection date and time: **05-SEP-2012 21:58**
Data file Sample Info. Line: PA20D;6769204;1;0;;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.255	(-0.017)	438	65	304596	(-20)	250.00	
70) Fluorobenzene	7.716	(-0.005)	1007	96	1307010	(-14)	50.00	
98) Chlorobenzene-d5	11.178	(-0.011)	1576	117	926400	(-13)	50.00	
130) 1,4-Dichlorobenzene-d4	13.064	(-0.036)	1886	152	529556	(-16)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.798	(-0.001)	113	309263	52.934	106%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.260	(-0.001)	102	81912	52.419	105%		77 - 113
86) Toluene-d8	(2)	9.736	(0.000)	98	1248308	48.162	96%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.188	(-0.002)	95	453908	48.168	96%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
1) Dichlorodifluoromethane	(1)				Not Detected					1	5
3) Chloromethane	(1)				Not Detected					1	5
4) Vinyl Chloride	(1)				Not Detected					1	5
5) Bromomethane	(1)				Not Detected					1	5
7) Chloroethane	(1)				Not Detected					1	5
8) Trichlorofluoromethane	(1)				Not Detected					1	5
16) 1,1-Dichloroethene	(1)	3.586	(-0.001)	96	37376	7.030	7.03			0.8	5
19) Acetone	(1)	3.732	(-0.014)	58	6642M	6.056	6.06		J	6	20
25) Methylene Chloride	(1)				Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)				Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)				Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)				Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)				Not Detected					0.8	5
42) 2-Butanone	(1)	6.354	(-0.026)	43	30192A	5.833	5.83		J	3	10
44) 2,2-Dichloropropane	(1)				Not Detected					1	5
48) Bromochloromethane	(1)				Not Detected					1	5
50) Chloroform	(1)				Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)				Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)				Not Detected					1	5
59) Carbon Tetrachloride	(1)				Not Detected					1	5
65) Benzene	(1)				Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)				Not Detected					1	5
74) Trichloroethene	(1)				Not Detected					1	5
76) 1,2-Dichloropropane	(1)				Not Detected					1	5
78) Dibromomethane	(1)				Not Detected					1	5
81) Bromodichloromethane	(1)				Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)				Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)				Not Detected					3	10
88) Toluene	(2)				Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)				Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)				Not Detected					0.8	5

M = Compound was manually integrated. A = User selected an alternate peak.

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PA20D

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769204

Data file: /chem/HP07159.i/12sep05b.b/ns05s53.d
Injection date and time: **05-SEP-2012 21:58**
Data file Sample Info. Line: PA20D;6769204;1;0;;PTL09;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4-Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

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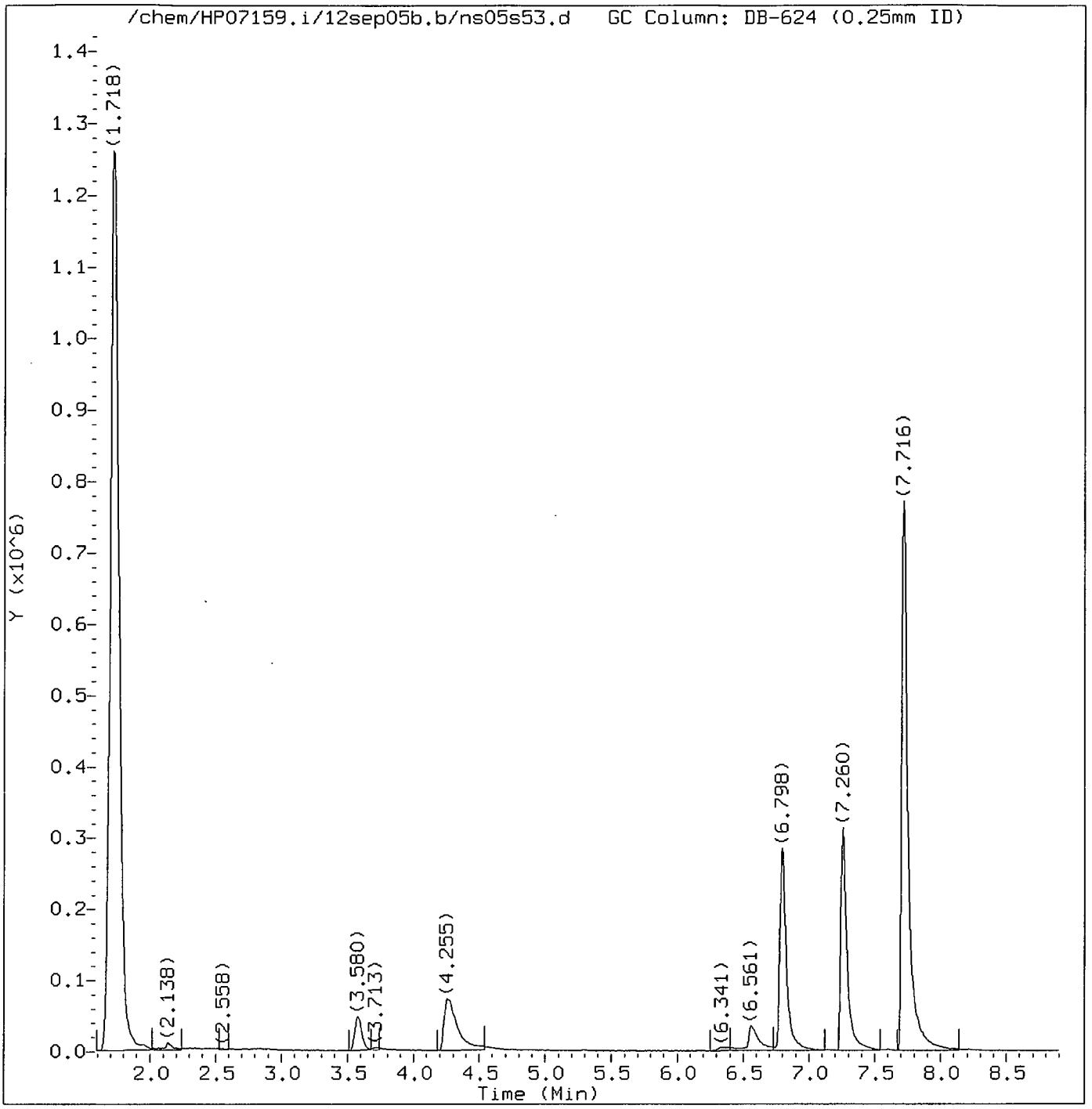
Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

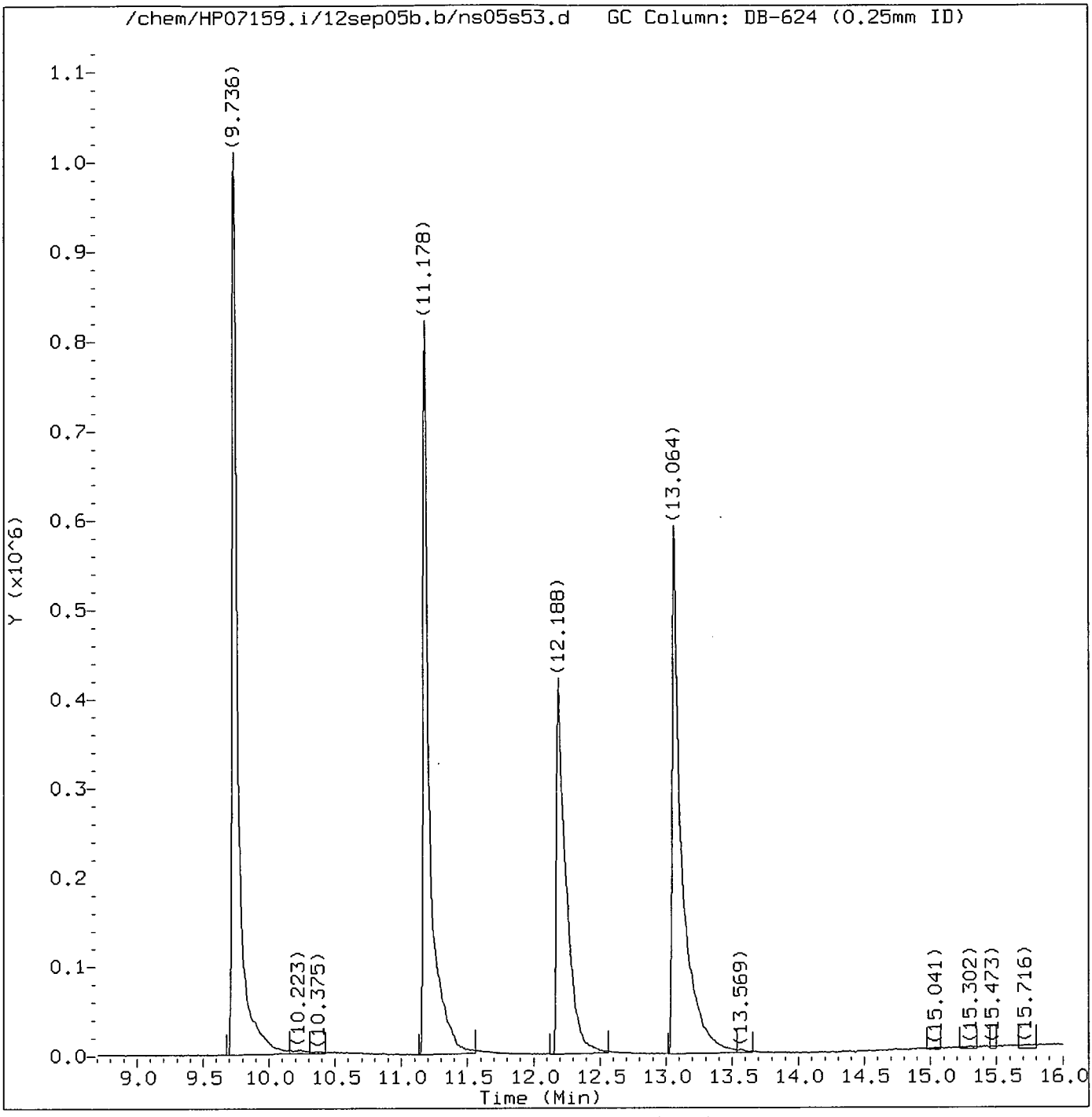
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s53.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20D Lab Sample ID: 6769204

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s53.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20D Lab Sample ID: 6769204

Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s53.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20D Lab Sample ID: 6769204

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
16) 1,1-Dichloroethene	(1)	3.586	96	37376	7.030
19) Acetone	(1)	3.732	58	6642M	6.056
26)*t-Butyl Alcohol-d10	(4)	4.255	65	304596	250.000
42) 2-Butanone	(1)	6.354	43	30192A	5.833
51)$Dibromofluoromethane	(1)	6.798	113	309263	52.934
62)$1,2-Dichloroethane-d4	(1)	7.260	102	81912	52.419
70)*Fluorobenzene	(1)	7.716	96	1307010	50.000
86)$Toluene-d8	(2)	9.736	98	1248308	48.162
98)*Chlorobenzene-d5	(2)	11.178	117	926400	50.000
114)$4-Bromofluorobenzene	(2)	12.188	95	453908	48.168
130)*1,4-Dichlorobenzene-d4	(3)	13.064	152	529556	50.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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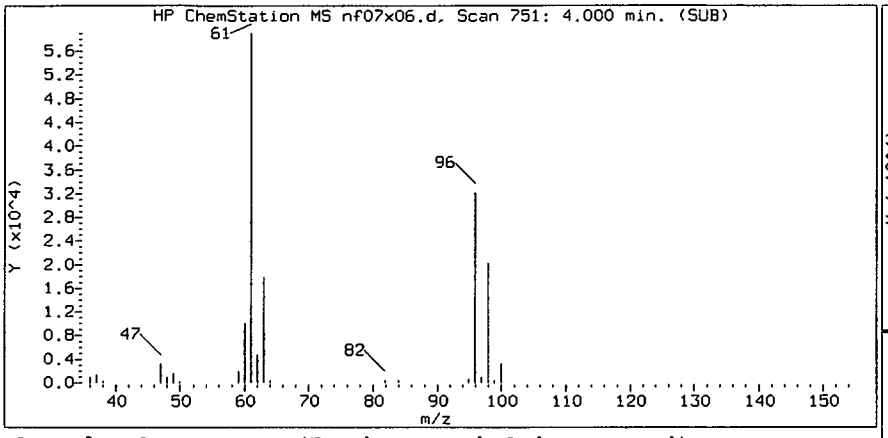
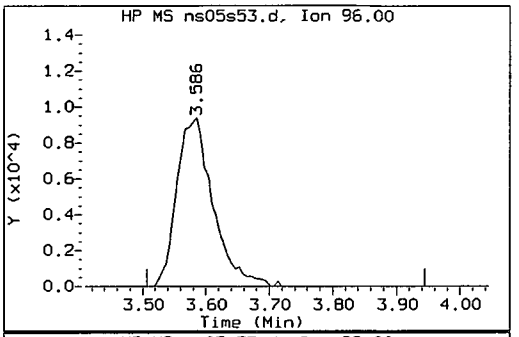
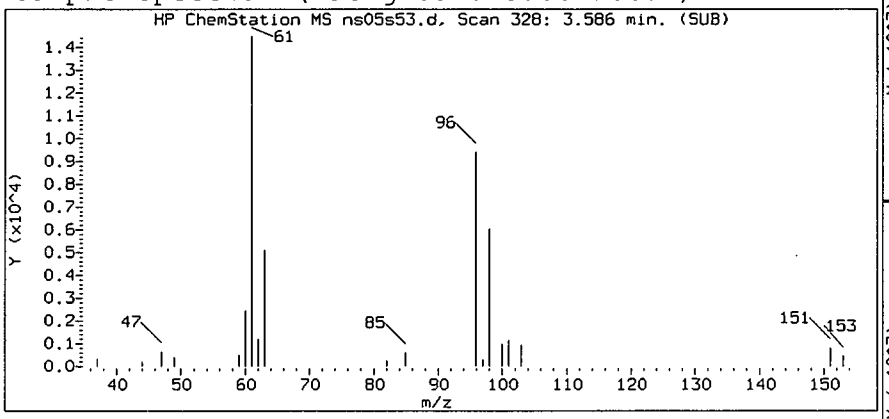
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

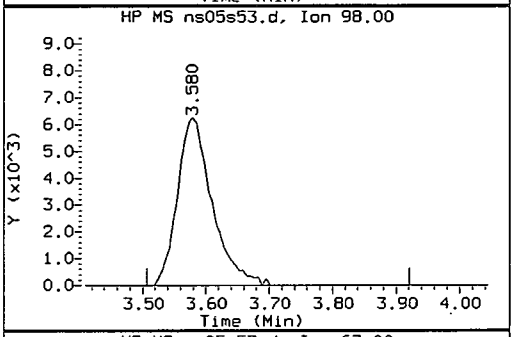
Reference Standard Spectrum for 1,1-Dichloroethene

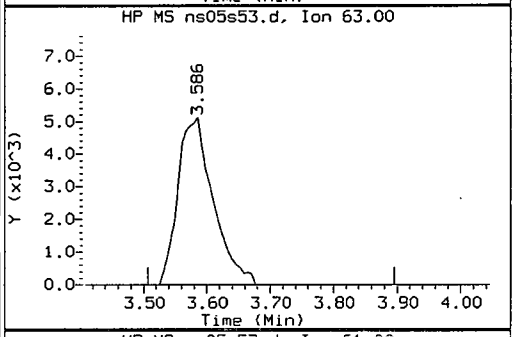




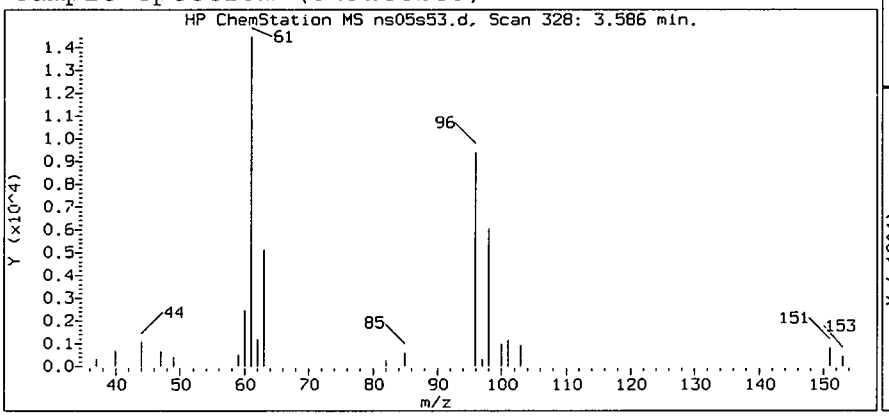
Sample Spectrum (Background Subtracted)

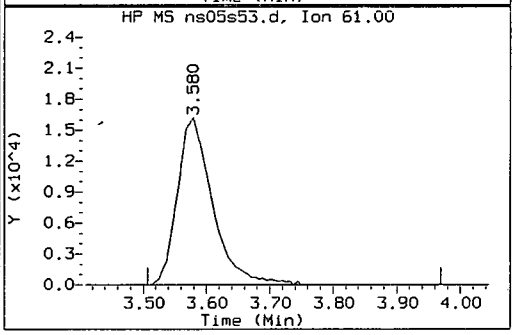






Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s53.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20D Lab Sample ID: 6769204

Compound Number : 16
Compound Name : 1,1-Dichloroethene
Scan Number : 328
Retention Time (minutes): 3.586
Relative Retention Time :-0.00116
Quant Ion : 96.00
Area (flag) : 37376
On-Column Amount (ng) : 7.0297

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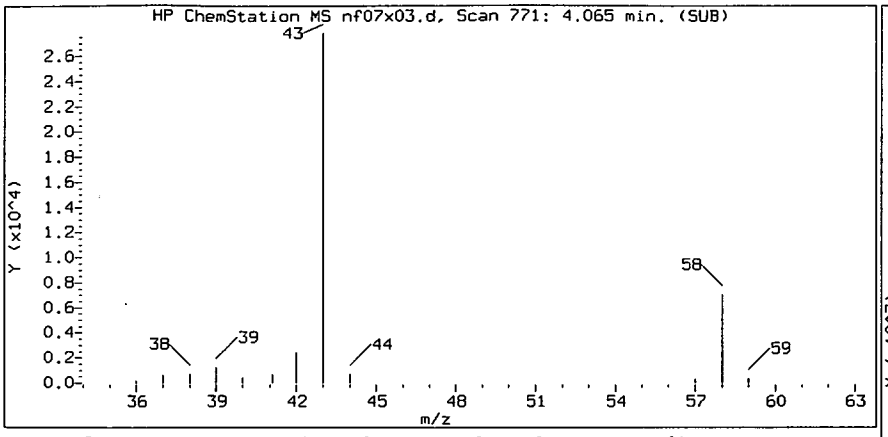
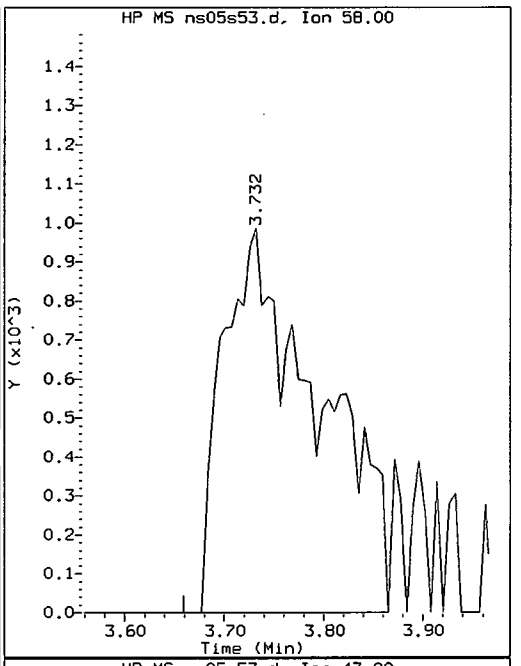
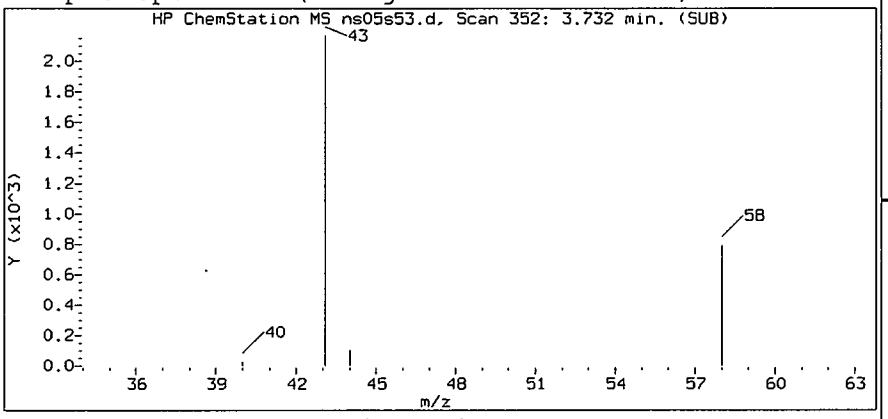
Target 3.5 esignature user ID: sag03174

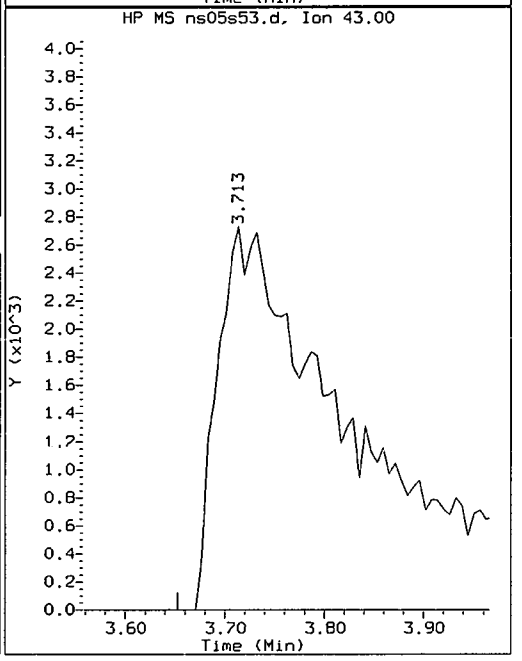
Reference Standard Spectrum for Acetone



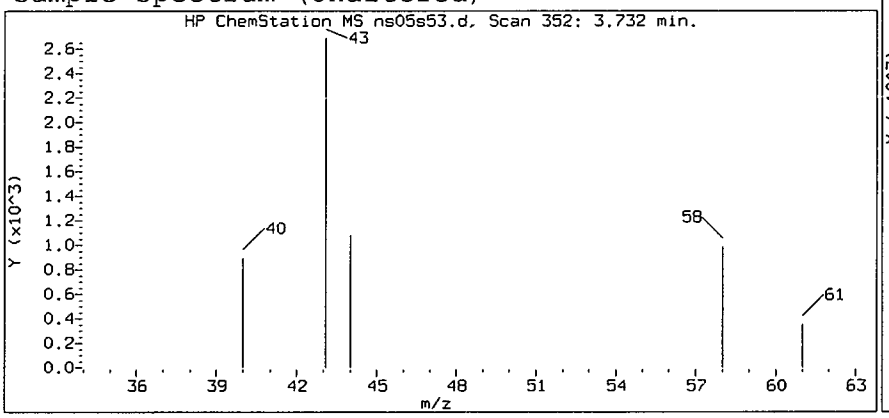


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/12sep05b.b/ns05s53.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:58 Analyst ID: ERS02237

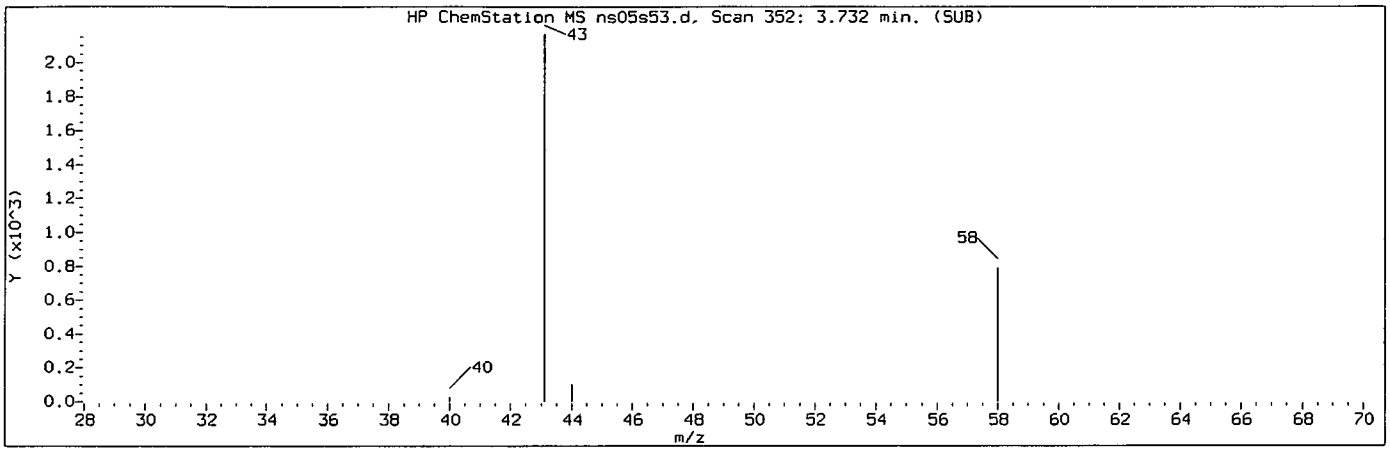
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20D Lab Sample ID: 6769204

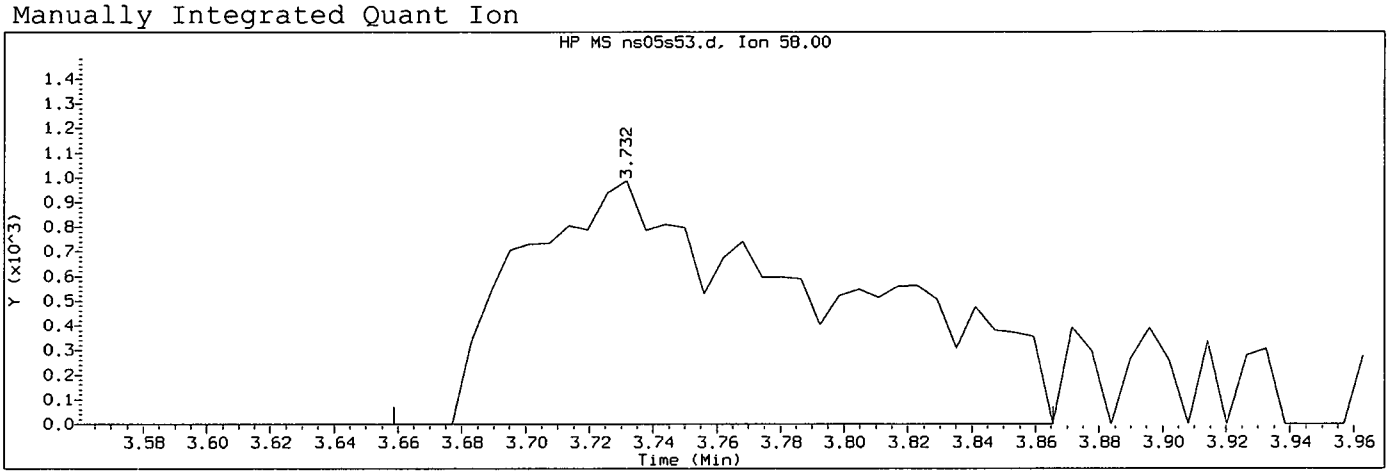
Compound Number	: 19
Compound Name	: Acetone
Scan Number	: 352
Retention Time (minutes)	: 3.732
Relative Retention Time	:-0.01456
Quant Ion	: 58.00
Area (flag)	: 6642M
On-Column Amount (ng)	: 6.0555

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s53.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20D Lab Sample ID: 6769204

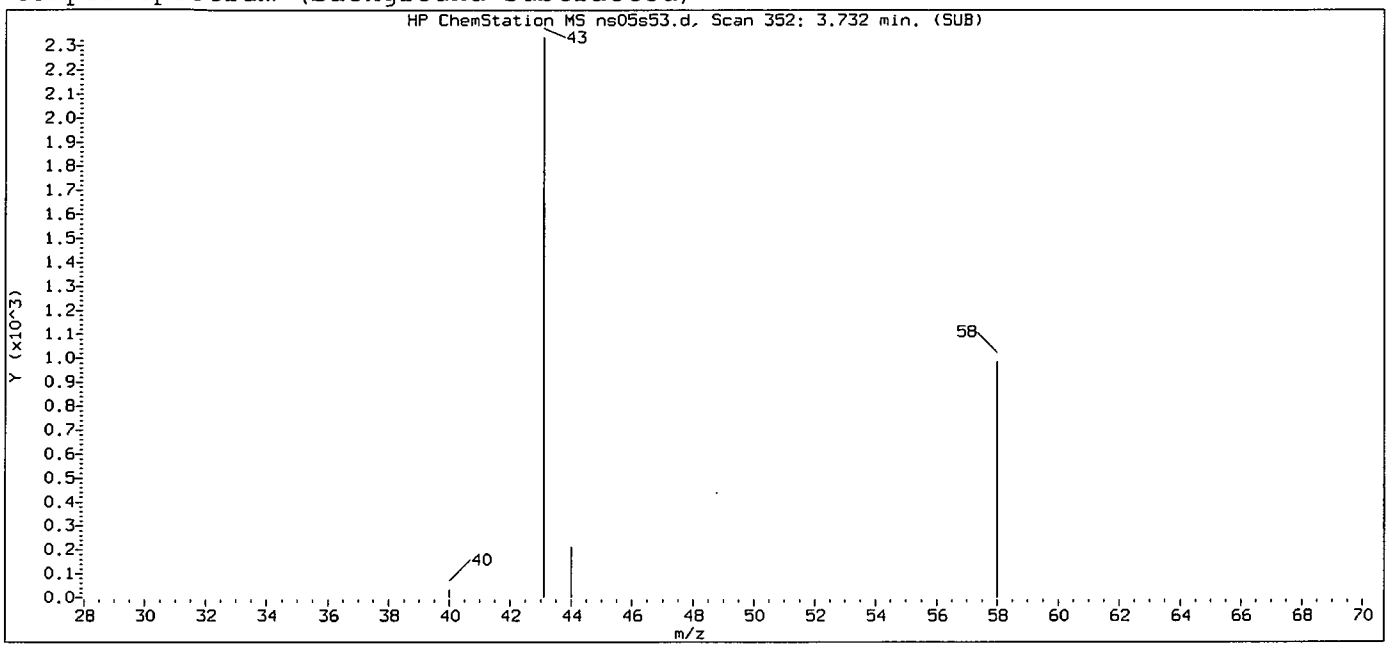
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 352		
Retention Time (minutes)	: 3.732		
Quant Ion	: 58.00		
Area (flag)	: 6642M		
On-Column Amount (ng)	: 6.0555		
Integration start scan	: 339	Integration stop scan:	373
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

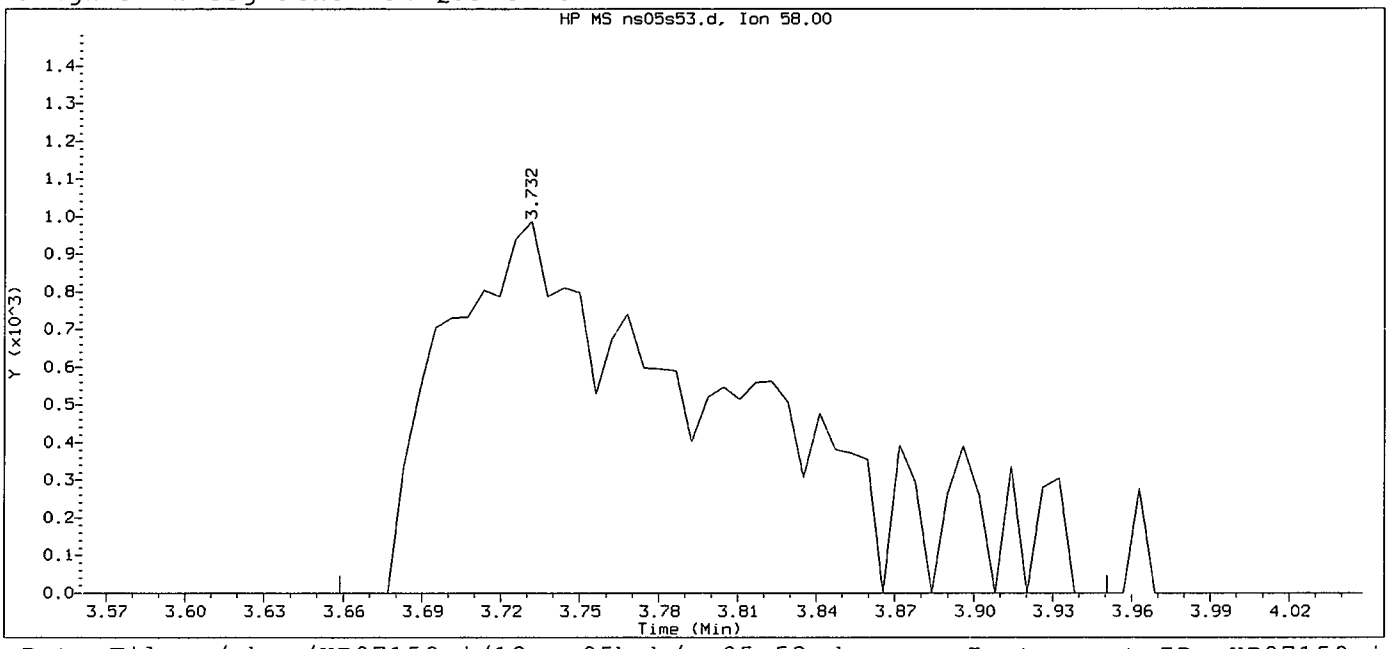
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s53.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:58 Analyst ID: ERS02237

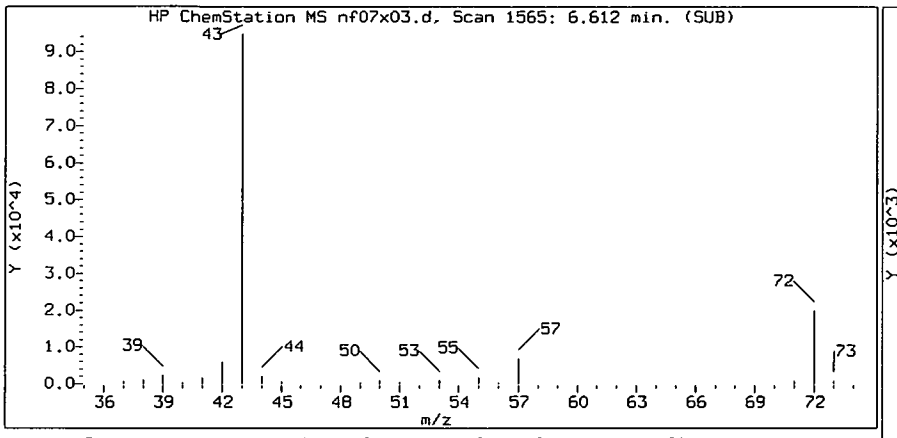
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 22:18 Automation

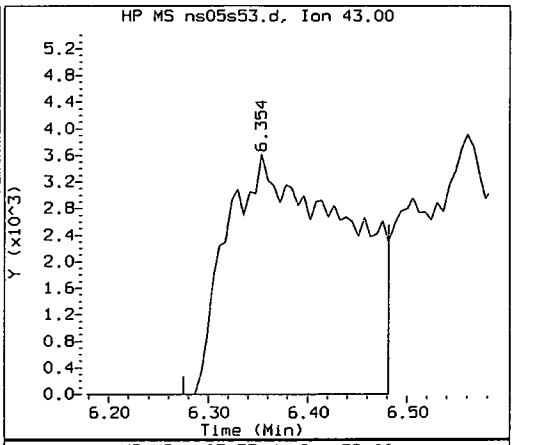
Sample Name: PA20D Lab Sample ID: 6769204

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 352		
Retention Time (minutes)	: 3.732		
Quant Ion	: 58.00		
Area	: 7564		
On-column Amount (ng)	: 6.8961		
Integration start scan	: 339	Integration stop scan:	387
Y at integration start	: 0	Y at integration end:	0

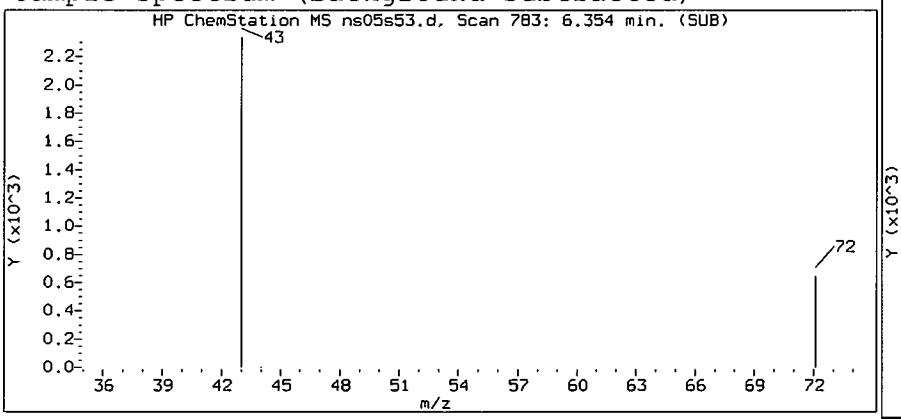
Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

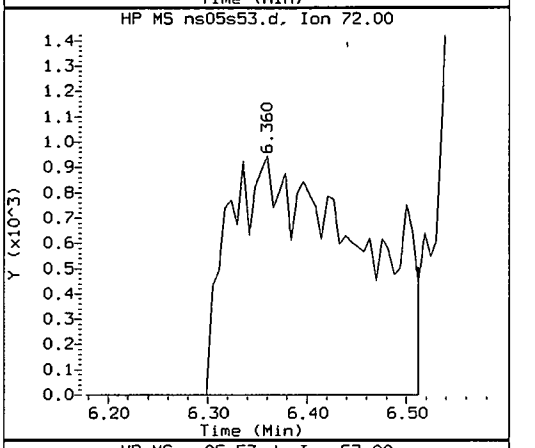
Reference Standard Spectrum for 2-Butanone



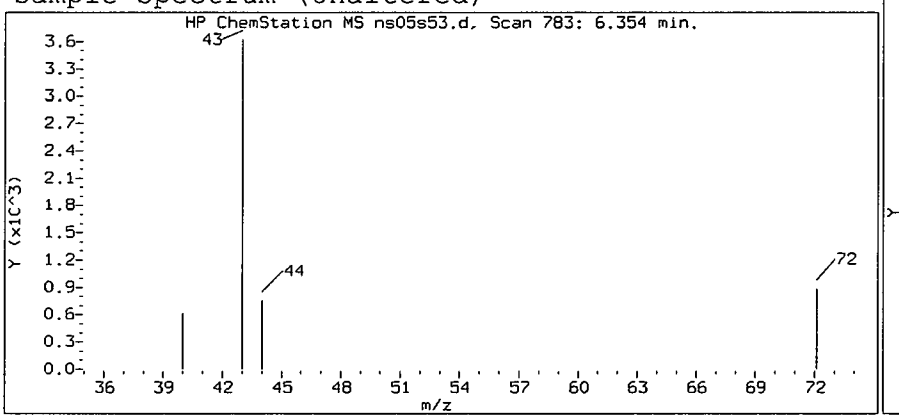


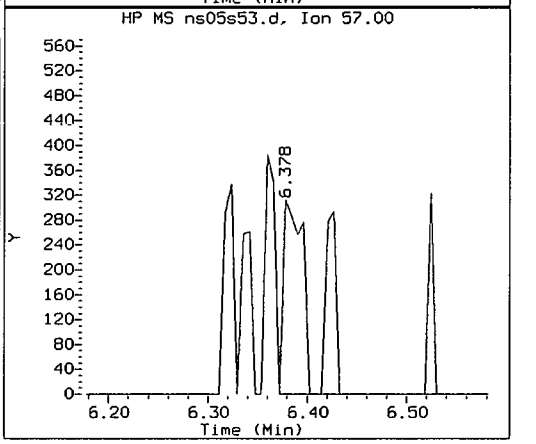
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/12sep05b.b/ns05s53.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:58 Analyst ID: ERS02237

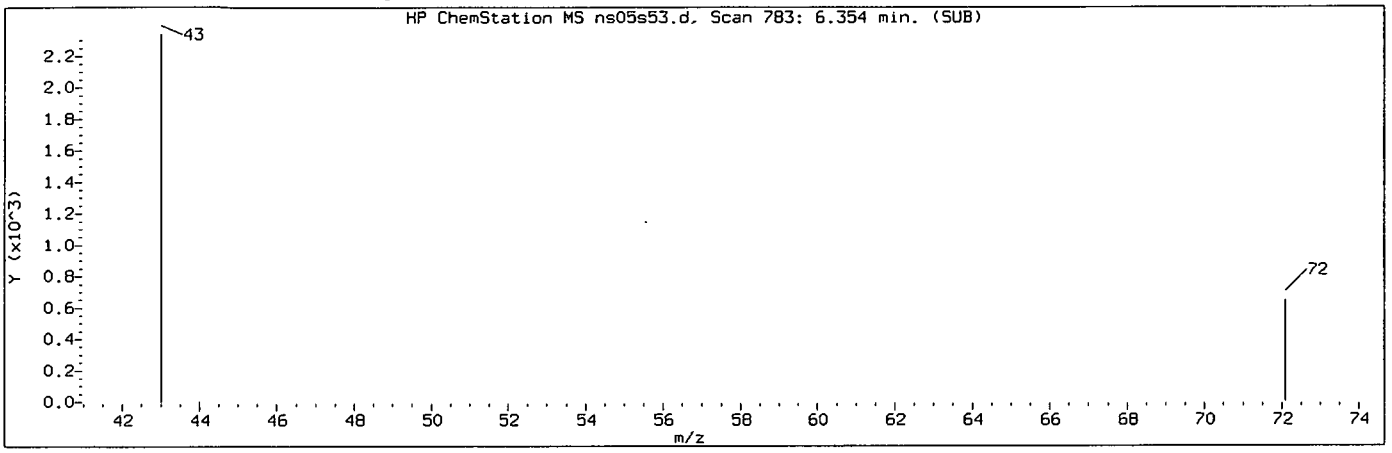
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20D Lab Sample ID: 6769204

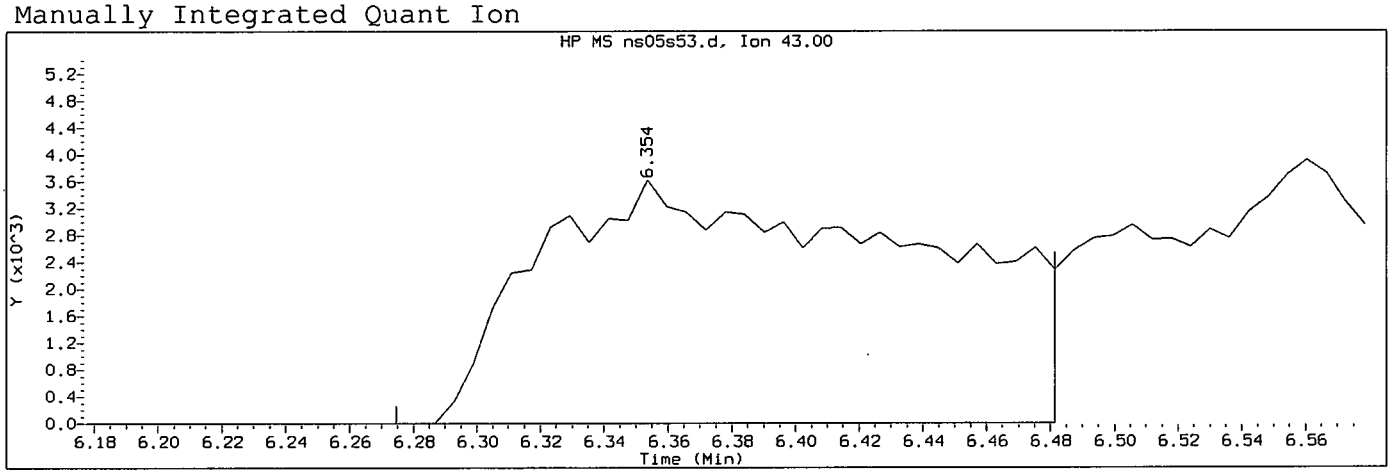
Compound Number : 42
Compound Name : 2-Butanone
Scan Number : 783
Retention Time (minutes): 6.354
Relative Retention Time :-0.02695
Quant Ion : 43.00
Area (flag) : 30192A
On-Column Amount (ng) : 5.8328

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s53.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 06-Sep-2012 16:35 sag03174

Sample Name: PA20D Lab Sample ID: 6769204

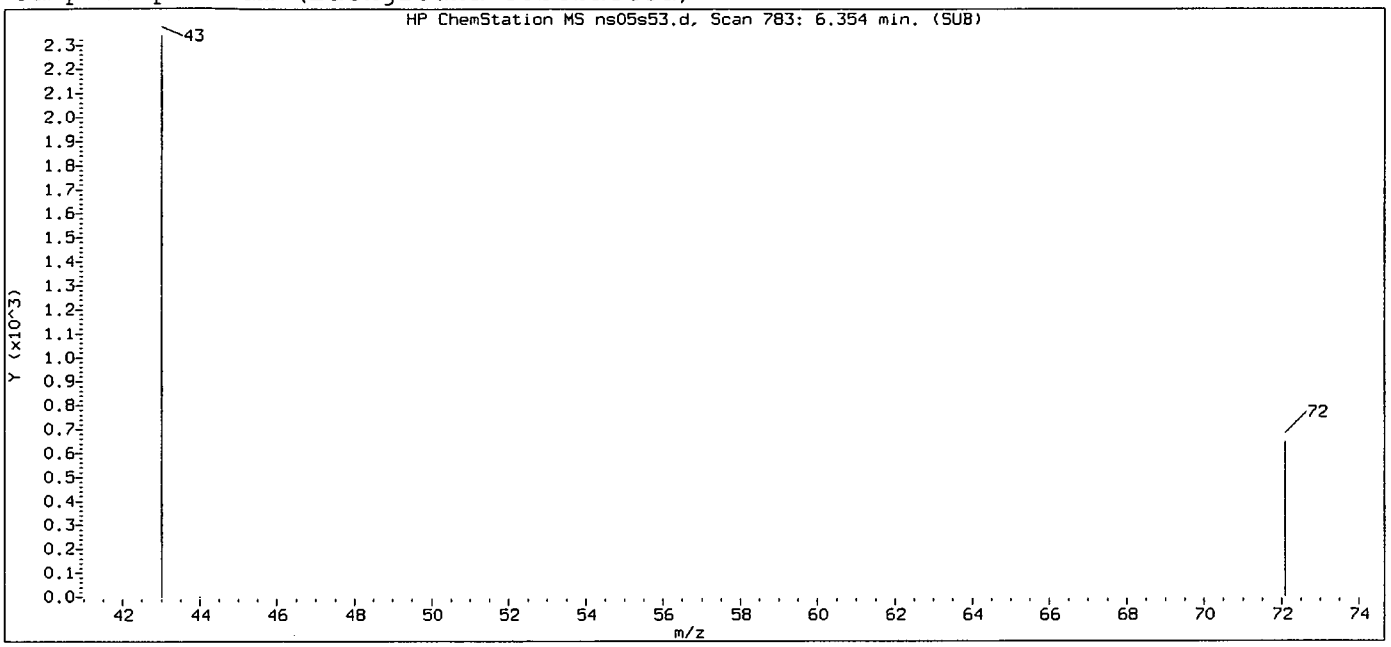
Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 783		
Retention Time (minutes)	: 6.354		
Quant Ion	: 43.00		
Area (flag)	: 30192A		
On-Column Amount (ng)	: 5.8328		
Integration start scan	: 769	Integration stop scan:	803
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

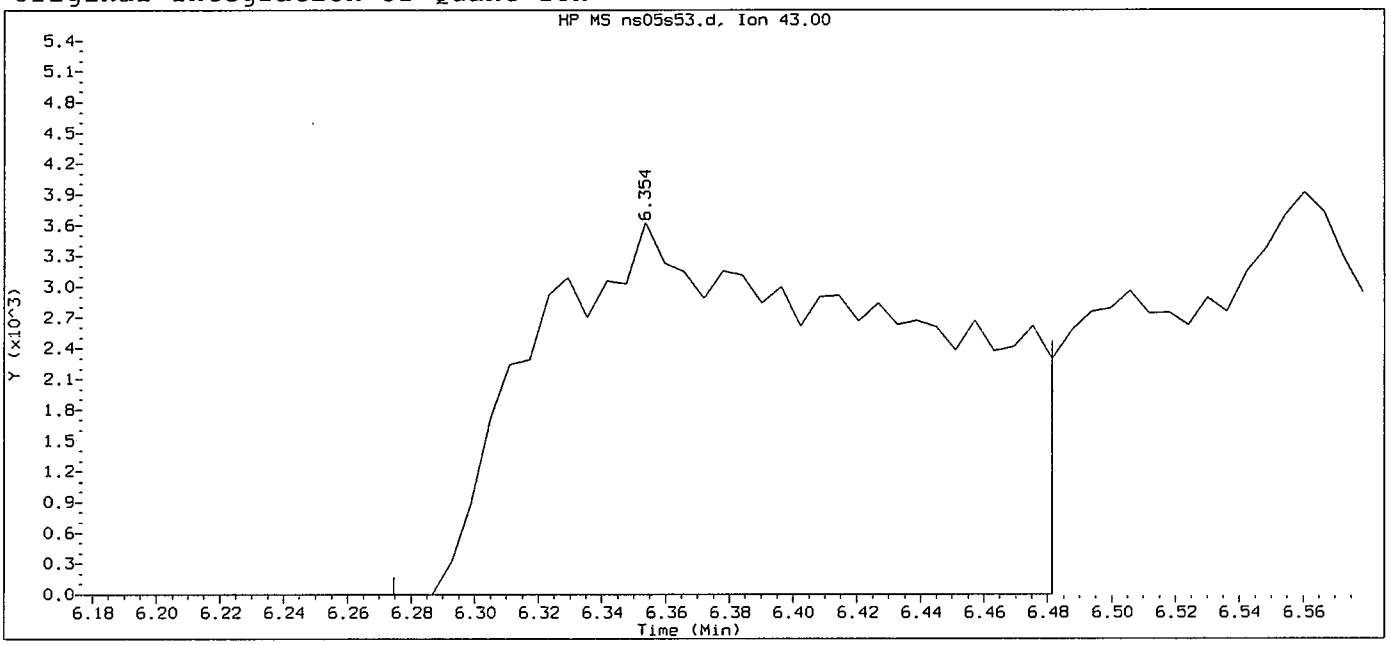
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 17:04.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05s53.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 21:58 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 22:18 Automation

Sample Name: PA20D Lab Sample ID: 6769204

Compound Number	: 42		
Compound Name	: 2-Butanone		
Scan Number	: 783		
Retention Time (minutes)	: 6.354		
Quant Ion	: 43.00		
Area	: 30192		
On-column Amount (ng)	: 5.8329		
Integration start scan	: 769	Integration stop scan:	803
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 09/06/2012 at 16:35.
Target 3.5 esignature user ID: sag03174

Standards Data

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP07159 **HP #11**

** Shift #1 Analyst:____ADS____** Shift #2 Analyst:____SG_____** Shift #3 Analyst:_____*

Comment Code:

R =	Reinjection necessary	X =	Sample sent to be reextracted
S =	Surrogate problem	I =	Internal Standard problem
NU =	Not used	F =	Further dilution required
MR =	Meets requirements	IUO =	Internal use only
Cz =	Confirms z, (z = S, I or X)	T =	Injected outside valid tune period

Other problems or comments are as follows:

_____

_____

_____

_____

Data Directory Path is - C:\HPCHEM\1\DATA\12AUG15A\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
NG15T01.D	BFB MAR28-12	50NG BFB	15 Aug 2012	11:32			MR
NG15I01.D	VSTD300	VSTD300	15 Aug 2012	11:55			NU
NG15I02.D	VSTD100	VSTD100	15 Aug 2012	12:19			NU
NG15I03.D	VSTD050	VSTD050	15 Aug 2012	12:42			MR
NG15I04.D	VSTD020	VSTD020	15 Aug 2012	13:05			MR
NG15I05.D	VSTD010	VSTD010	15 Aug 2012	13:28			NU
NG15I06.D	VSTD004	VSTD004	15 Aug 2012	13:51			MR
NG15I07.D	VSTD001	VSTD001	15 Aug 2012	14:15			MR
NG15M01.D	0.5PPB	0.5PPB	15 Aug 2012	14:38			MR
NG15I08.D	VSTD300	VSTD300	15 Aug 2012	15:01			MR
NG15I09.D	VSTD100	VSTD100	15 Aug 2012	15:24			MR
NG15X01.D	BLK	BLK	15 Aug 2012	15:48			NU
NG15I10.D	VSTD010	VSTD010	15 Aug 2012	16:11			MR
NG15V01.D	LCSNICV	LCSNICV	15 Aug 2012	16:34			MR
NG15X02.D	BLK	BLK	15 Aug 2012	17:18			NU

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP07159 **HP #11**

** Shift #1 Analyst: ERS ** Shift #2 Analyst: SG ** Shift #3 Analyst: _____ *

Comment Code:

R =	Reinjection necessary	X =	Sample sent to be reextracted
S =	Surrogate problem	I =	Internal Standard problem
NU =	Not used	F =	Further dilution required
MR =	Meets requirements	IUO =	Internal use only
Cz =	Confirms z, (z = S, I or X)	T =	Injected outside valid tune period

Other problems or comments are as follows:

8260B WATERS

Data Directory Path is - C:\HPCHEM\1\DATA\12SEP05B\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
NS05T05.D	BFB MAR28-12	50NG BFB	5 Sep 2012	12:02			MR
NS05C01.D	VSTD050	VSTD050	5 Sep 2012	12:18	N122492AA		MR
NS05B05.D	VBLKN08	VBLKN08	5 Sep 2012	12:41	N122492AA		MR
NS05S31.D	LCSN08	LCSN08	5 Sep 2012	13:05	N122492AA		MR
NS05S32.D	PAT-T	6769183	5 Sep 2012	13:48	N122492AA		MR
NS05S33.D	PAT23	6769184	5 Sep 2012	14:11	N122492AA		MR
NS05S34.D	PAT11	6769185	5 Sep 2012	14:35	N122492AA		MR
NS05S35.D	PAT-4	6769186	5 Sep 2012	14:58	N122492AA		MR
NS05S36.D	PAT-9	6769187	5 Sep 2012	15:21	N122492AA		MR
NS05S37.D	PAT10	6769188	5 Sep 2012	15:45	N122492AA		MR
NS05S38.D	PAT-8	6769189	5 Sep 2012	16:08	N122492AA		MR
NS05S39.D	PAT15	6769190	5 Sep 2012	16:32	N122492AA		MR
NS05S40.D	PAT-7	6769191	5 Sep 2012	16:55	N122492AA		MR
NS05S41.D	PAT7A	6769192	5 Sep 2012	17:19	N122492AA		MR
NS05S42.D	PATVA	6769193	5 Sep 2012	17:42	N122492AA		MR
NS05S43.D	PAT-D	6769194	5 Sep 2012	18:06	N122492AA		MR
NS05S44.D	PAT16	6769195	5 Sep 2012	18:29	N122492AA		MR
NS05S45.D	PAT16MS	6769196MS	5 Sep 2012	18:52	N122492AA		MR
NS05S46.D	PAT16MSD	6769197MSD	5 Sep 2012	19:16	N122492AA		MR
NS05S47.D	PA19D	6769198	5 Sep 2012	19:39	N122492AA		MR
NS05S48.D	PA19S	6769199	5 Sep 2012	20:02	N122492AA		MR
NS05S49.D	PAT17	6769200	5 Sep 2012	20:26	N122492AA		MR
NS05S50.D	PA18S	6769201	5 Sep 2012	20:49	N122492AA		MR
NS05S51.D	PA18D	6769202	5 Sep 2012	21:12	N122492AA		MR
NS05S52.D	PA20S	6769203	5 Sep 2012	21:36	N122492AA		MR
NS05S53.D	PA20D	6769204	5 Sep 2012	21:58	N122492AA		MR

Data File: /chem/HP07159.i/12aug15a.b/ng15t01.d

Date : 15-AUG-2012 11:32

Client ID: BFB MAR28-12

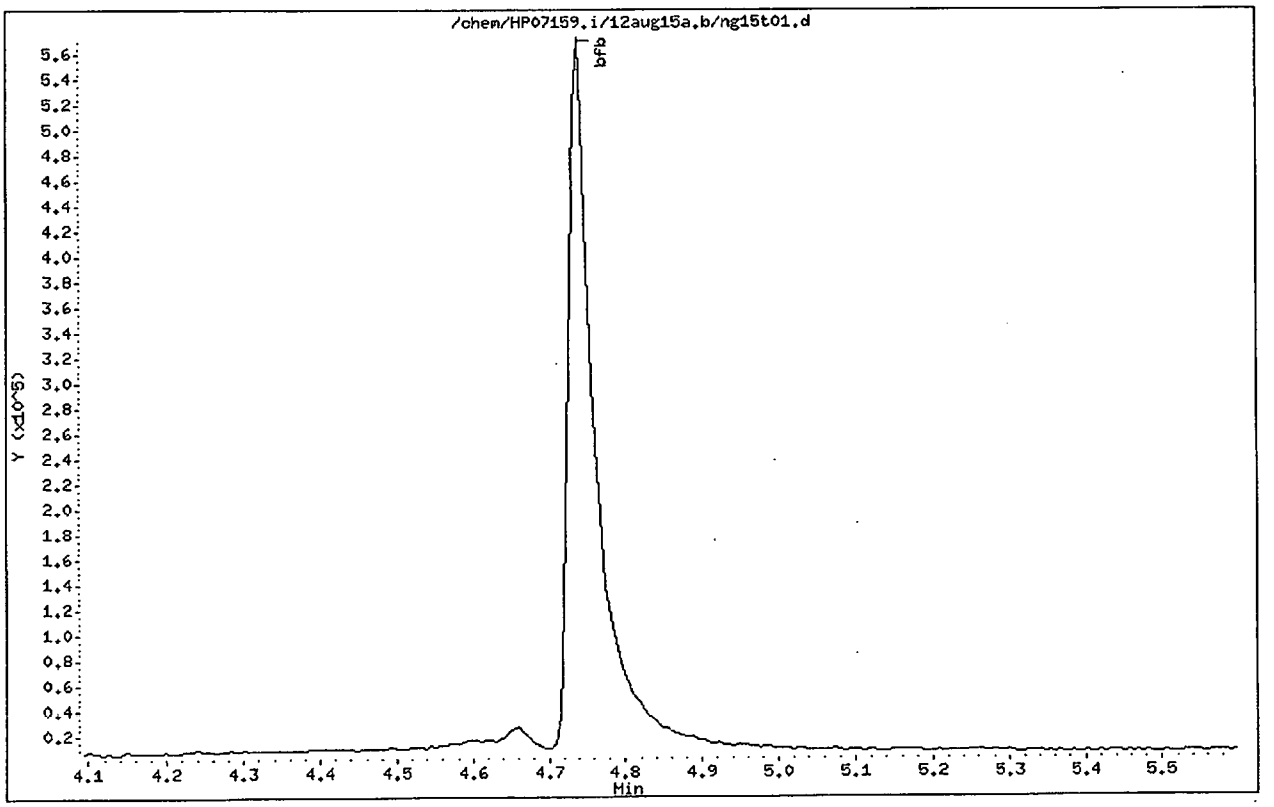
Instrument: HP07159.i

Sample Info: BFB MAR28-12;50NG BFB;1;2;;

Operator: ads01731

Column phase: DB-624

Column diameter: 0.25



Digitally signed by Sarah A. Gullion 08/15/2012 at 19:08
Target 3.5 esignature user ID: sag03174

Data File: /chem/HP07159.i/12aug15a.b/ng15t01.d

Date : 15-AUG-2012 11:32

Client ID: BFB MAR28-12

Instrument: HP07159.i

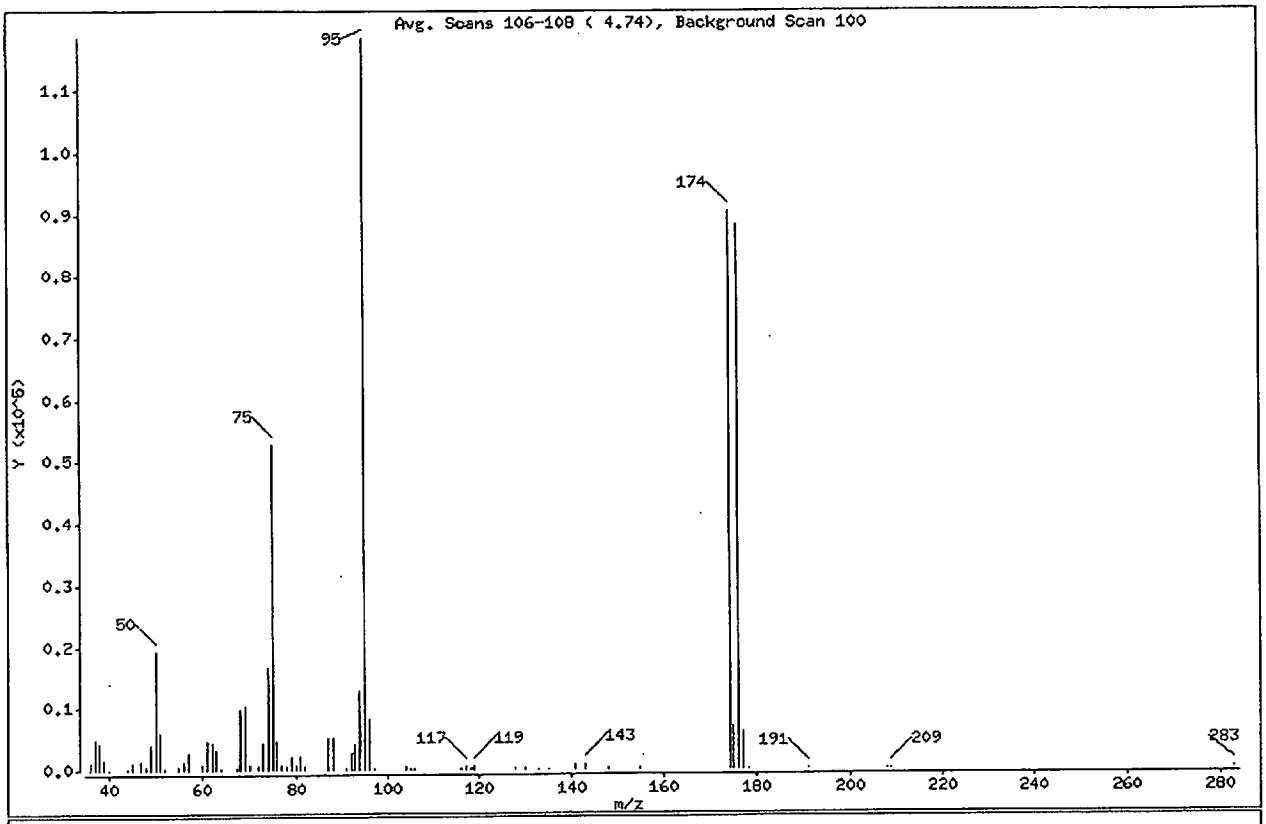
Sample Info: BFB MAR28-12;50NG BFB;1;2;;

Operator: ads01731

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.39
75	30.00 - 60.00% of mass 95	44.83
96	5.00 - 9.00% of mass 95	6.83
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	76.29
175	5.00 - 9.00% of mass 174	5.67 (7.43)
176	95.00 - 101.00% of mass 174	74.57 (97.74)
177	5.00 - 9.00% of mass 176	5.13 (6.89)

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:08.
Target 3.5 esignature user ID: sag03174

Data File: /chem/HP07159.i/12aug15a.b/ng15t01.d

Date : 15-AUG-2012 11:32

Client ID: BFB MAR28-12

Instrument: HP07159.i

Sample Info: BFB MAR28-12;50NG BFB;1;2;;

Operator: ads01731

Column phase: DB-624

Column diameter: 0.25

Data File: ng15t01.d

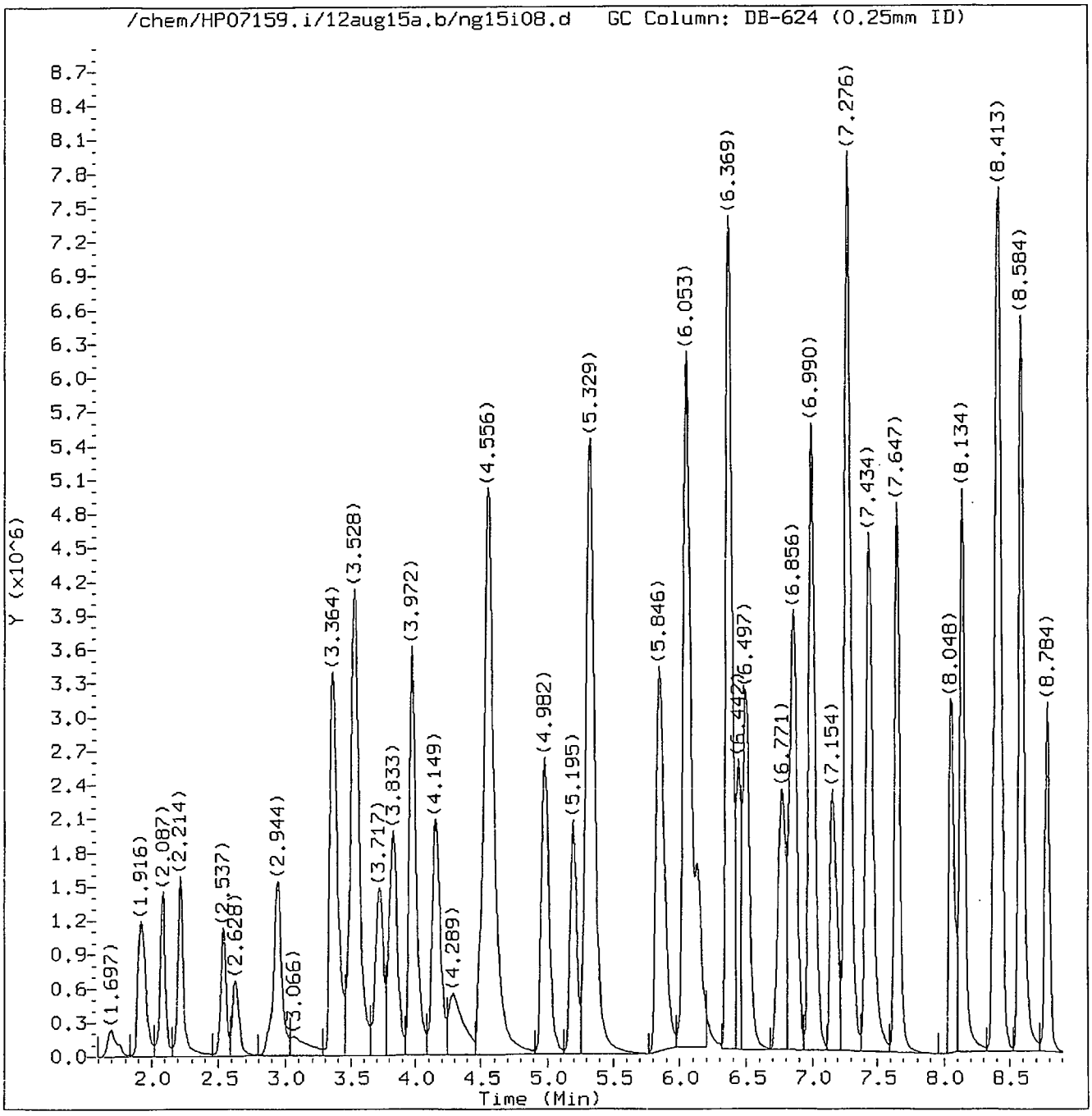
Spectrum: Avg. Scans 106-108 (4.74), Background Scan 100

Location of Maximum: 95.00

Number of points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1036	62.00	4421	87.00	5270	133.00	5
37.00	4840	63.00	3226	88.00	5049	135.00	90
38.00	4301	64.00	304	91.00	305	141.00	743
39.00	1753	67.00	188	92.00	2845	143.00	790
40.00	101	68.00	9940	93.00	4201	148.00	197
44.00	391	69.00	10431	94.00	12732	155.00	223
45.00	995	70.00	808	95.00	118480	174.00	90392
47.00	1473	72.00	599	96.00	8090	175.00	6714
48.00	568	73.00	4486	97.00	254	176.00	88344
49.00	4151	74.00	16536	104.00	415	177.00	6083
50.00	19424	75.00	52760	105.00	335	178.00	104
51.00	6114	76.00	4654	106.00	370	191.00	17
52.00	314	77.00	742	116.00	347	208.00	27
55.00	435	78.00	555	117.00	524	209.00	104
56.00	1385	79.00	2085	118.00	320	283.00	16
57.00	2639	80.00	686	119.00	485		
60.00	916	81.00	2212	128.00	395		
61.00	4602	82.00	496	130.00	376		

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:08.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

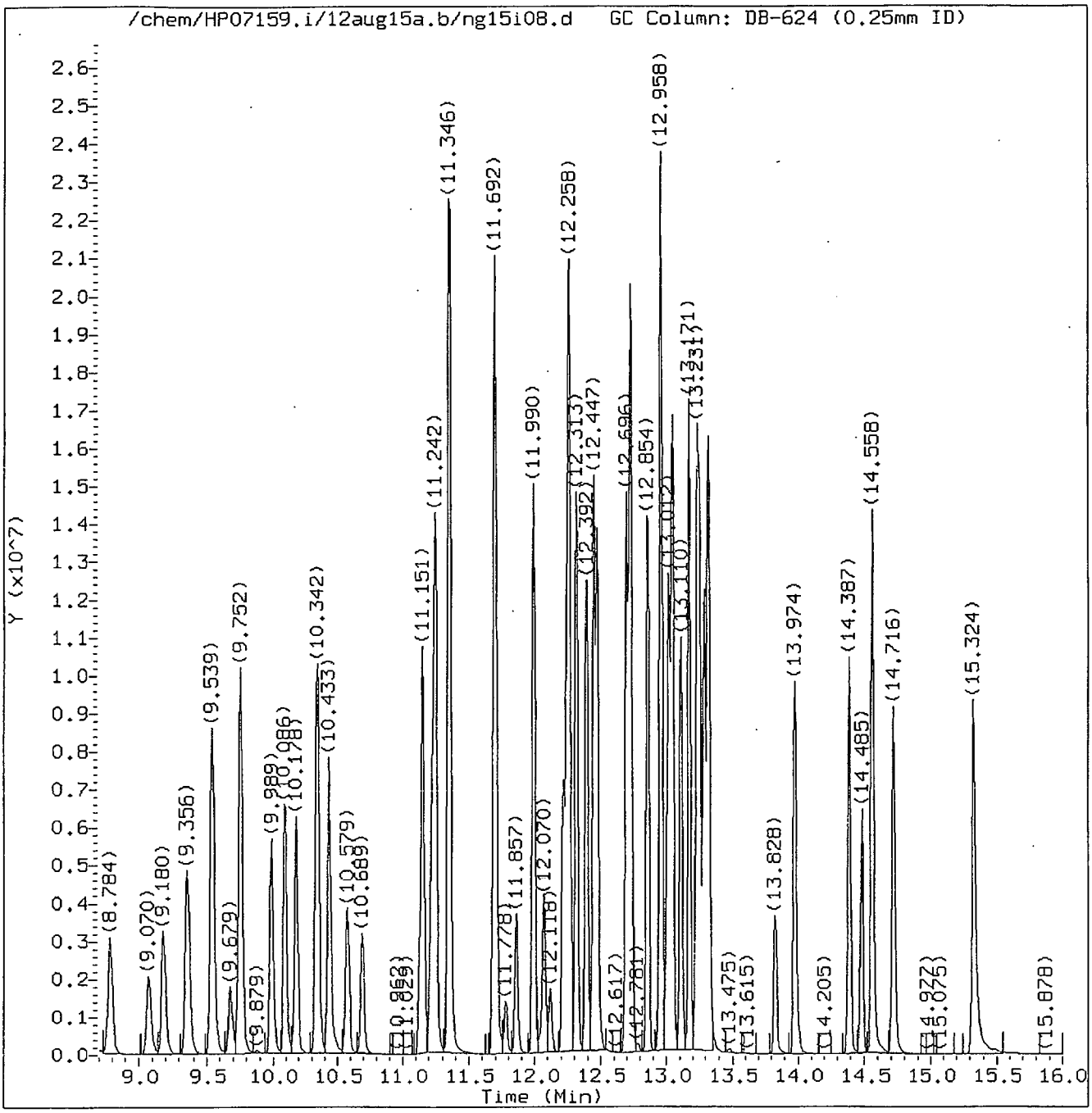
Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Sarah A. Gulli
on 08/16/2012 at 20:06.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

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on 08/16/2012 at 20:06
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.916	85	3032560	303.637
3) Chloromethane	(1)	2.087	50	2479649	278.837
4) Vinyl Chloride	(1)	2.214	62	2506286	278.402
5) Bromomethane	(1)	2.537	94	1231583	226.099
7) Chloroethane	(1)	2.628	64	1109593	240.785
8) Trichlorofluoromethane	(1)	2.944	101	2911762	290.928
12) Ethanol	(4)	3.084	45	991293	7501.554
13) Acrolein	(4)	3.364	56	7281969	2878.394
16) 1,1-Dichloroethene	(1)	3.528	96	1740249	281.635
18) Freon 113	(1)	3.534	101	1731135	275.628
19) Acetone	(1)	3.547	58	723703	567.732
21) 2-Propanol	(4)	3.717	45	1541551	1423.517
20) Methyl Iodide	(1)	3.723	142	3131825	286.756
22) Carbon Disulfide	(1)	3.833	76	5998383	287.064
23) Allyl Chloride	(1)	3.972	41	3513261	269.244
24) Methyl Acetate	(1)	3.985	43	2494037	267.852
25) Methylene Chloride	(1)	4.149	84	2169224	275.677
26)*t-Butyl Alcohol-d10	(4)	4.179	65	373652	250.000
27) t-Butyl Alcohol	(4)	4.295	59	2337187	1298.663
28) Acrylonitrile	(1)	4.502	53	1409134	303.832
29) trans-1,2-Dichloroethene	(1)	4.556	96	2060841	289.570
30) Methyl Tertiary Butyl Ether	(1)	4.556	73	7060972	282.663
34) n-Hexane	(1)	4.982	57	2777330	291.513
36) 1,1-Dichloroethane	(1)	5.195	63	3956428	291.341
37) di-Isopropyl Ether	(1)	5.311	45	7131156	280.982
33) 1,2-Dichloroethene (total)	(1)		96	4424293	579.930
38) 2-Chloro-1,3-Butadiene	(1)	5.335	53	3093611	284.118
39) Ethyl t-Butyl Ether	(1)	5.846	59	6855853	276.167
40) cis-1,2-Dichloroethene	(1)	6.047	96	2363452	290.361
42) 2-Butanone	(1)	6.059	43	3767517	626.280
44) 2,2-Dichloropropane	(1)	6.065	77	2862783	291.557
45) Propionitrile	(4)	6.138	54	2904842	1527.037
47) Methacrylonitrile	(1)	6.363	67	3593842	695.569
48) Bromochloromethane	(1)	6.381	128	1187308	284.311
49) Tetrahydrofuran	(4)	6.448	71	1073648	612.175
50) Chloroform	(1)	6.503	83	3614425	282.160
51)$Dibromofluoromethane	(1)	6.728	113	341587	50.308
52)$Dibromofluoromethane(mz111)	(1)	6.728	111	349117	50.337

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/16/2012 at 20:06
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(1)	6.771	97	3023281	286.879
54) Cyclohexane (mz 84)	(1)	6.856	84	3182444	289.878
55) Cyclohexane (mz 69)	(1)	6.856	69	1169211	283.211
56) Cyclohexane	(1)	6.856	56	3771767	286.060
58) 1,1-Dichloropropene	(1)	6.990	75	2942575	271.215
59) Carbon Tetrachloride	(1)	7.002	117	2456336	318.033
61) Isobutyl Alcohol	(4)	7.154	41	1995532	3490.370
63)$1,2-Dichloroethane-d4(mz65)	(1)	7.184	65	392737	49.230
64)$1,2-Dichloroethane-d4(mz104)	(1)	7.191	104	58188	50.459
62)$1,2-Dichloroethane-d4	(1)	7.191	102	90770	49.982
65) Benzene	(1)	7.270	78	8810688	282.380
67) 1,2-Dichloroethane (mz 98)	(1)	7.288	98	289426M	283.787
66) 1,2-Dichloroethane	(1)	7.288	62	2829692	286.313
68) t-Amyl Methyl Ether	(1)	7.434	73	6981614	291.303
69) n-Heptane	(1)	7.647	43	2486286	274.322
70)*Fluorobenzene	(1)	7.653	96	1518971	50.000
71) n-Butanol	(4)	8.048	56	3540671	7449.647
74) Trichloroethene	(1)	8.134	95	2239373	290.129
75) Methylcyclohexane	(1)	8.395	83	3660688	285.641
76) 1,2-Dichloropropane	(1)	8.419	63	2502653	290.003
78) Dibromomethane	(1)	8.572	93	1555593	297.800
77) Methyl Methacrylate	(1)	8.590	69	2488601	285.574
80) 1,4-Dioxane	(4)	8.602	88	481191	3464.165
81) Bromodichloromethane	(1)	8.784	83	2788217	320.372
82) 2-Nitropropane	(4)	9.070	41	1749086	700.463
83) 2-Chloroethyl Vinyl Ether	(1)	9.180	63	1969983A	334.774
84) cis-1,3-Dichloropropene	(1)	9.356	75	3847772	305.874
85) 4-Methyl-2-Pentanone	(1)	9.539	43	7545992A	582.366
86)$Toluene-d8	(2)	9.679	98	1492903	49.988
87)$Toluene-d8(mz100)	(2)	9.679	100	1016090	50.872
88) Toluene	(2)	9.752	92	5669645	280.288
89) trans-1,3-Dichloropropene	(2)	9.989	75	3677577	306.941
90) Ethyl Methacrylate	(2)	10.086	69	4170870	284.715
91) 1,1,2-Trichloroethane	(2)	10.178	97	2271471	284.193
93) Tetrachloroethene	(2)	10.336	166	2239329	290.121
94) 1,3-Dichloropropane	(2)	10.348	76	3977476	286.445
95) 2-Hexanone	(2)	10.433	43	5830065MA	605.535
96) Dibromochloromethane	(2)	10.579	129	2330263	299.165

M = Compound was manually integrated.
A = User selected an alternate hit.
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on 08/16/2012 at 20:06
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,2-Dibromoethane	(2)	10.689	107	2492676	300.302
98)*Chlorobenzene-d5	(2)	11.127	117	1067454	50.000
100) Chlorobenzene	(2)	11.151	112	6300296	281.781
101) 1,1,1,2-Tetrachloroethane	(2)	11.218	131	2107787	303.809
102) Ethylbenzene	(2)	11.248	91	10065312A	271.864
103) m+p-Xylene	(2)	11.352	106	7597194	505.408
104) Xylene (Total)	(2)		106	11353782	759.757
106) o-Xylene	(2)	11.686	106	3756588	254.349
109) Styrene	(2)	11.705	104	6607606	267.561
110) Bromoform	(2)	11.857	173	1777094	299.918
111) Isopropylbenzene	(2)	11.990	105	9362950	256.368
112) Cyclohexanone	(4)	12.070	55	2050570	3648.791
114)$4-Bromofluorobenzene	(2)	12.118	95	554475	51.065
115)$4-Bromofluorobenzene(mz174)	(2)	12.124	174	432440	50.852
116) 1,1,2,2-Tetrachloroethane	(3)	12.216	83	3665857	275.041
117) Bromobenzene	(3)	12.246	156	2576816	276.126
118) trans-1,4-Dichloro-2-Butene	(3)	12.258	53	2275385MA	688.215
119) 1,2,3-Trichloropropane	(3)	12.258	110	977719	262.188
120) n-Propylbenzene	(3)	12.313	91	10683164A	259.408
121) 2-Chlorotoluene	(3)	12.392	126	2465880A	281.486
122) 1,3,5-Trimethylbenzene	(3)	12.447	105	8099300	264.896
123) 4-Chlorotoluene	(3)	12.471	126	2594402	270.778
124) tert-Butylbenzene	(3)	12.696	134	1815731	271.847
125) Pentachloroethane	(3)	12.720	167	1598045	298.848
126) 1,2,4-Trimethylbenzene	(3)	12.733	105	8267541	266.678
127) sec-Butylbenzene	(3)	12.860	105	9247884	256.855
129) 1,3-Dichlorobenzene	(3)	12.952	146	4389929	278.867
128) p-Isopropyltoluene	(3)	12.958	119	7777909A	253.913
130)*1,4-Dichlorobenzene-d4	(3)	13.000	152	580637	50.000
131) 1,4-Dichlorobenzene	(3)	13.019	146	5014115	251.639
132) 1,2,3-Trimethylbenzene	(3)	13.043	105	8715623	262.332
133) Benzyl Chloride	(3)	13.110	91	7435676	298.813
134) 1,3-Diethylbenzene	(3)	13.171	105	5182484A	273.791
135) 1,4-Diethylbenzene	(3)	13.231	105	4856514	268.649
136) n-Butylbenzene	(3)	13.250	92	4043432A	250.267
137) 1,2-Dichlorobenzene	(3)	13.292	146	4846579	268.256
138) 1,2-Diethylbenzene	(3)	13.323	105	5252995	300.079
139) 1,2-Dibromo-3-Chloropropane	(3)	13.828	75	908834A	297.856

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on 08/16/2012 at 20:06
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
140)	1,2,4-Trichlorobenzene	(3)	14.387	180	3156671	255.314
141)	Hexachlorobutadiene	(3)	14.485	225	1140499	265.649
142)	Naphthalene	(3)	14.558	128	11210426	242.611
144)	1,2,3-Trichlorobenzene	(3)	14.716	180	3090898	249.085
145)	2-Methylnaphthalene	(3)	15.324	142	6258292	230.993

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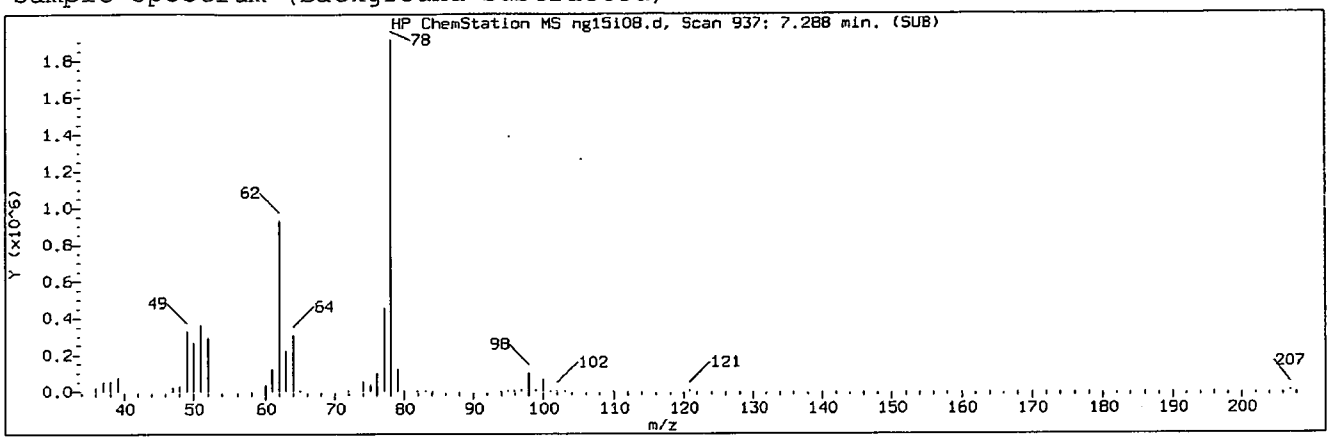
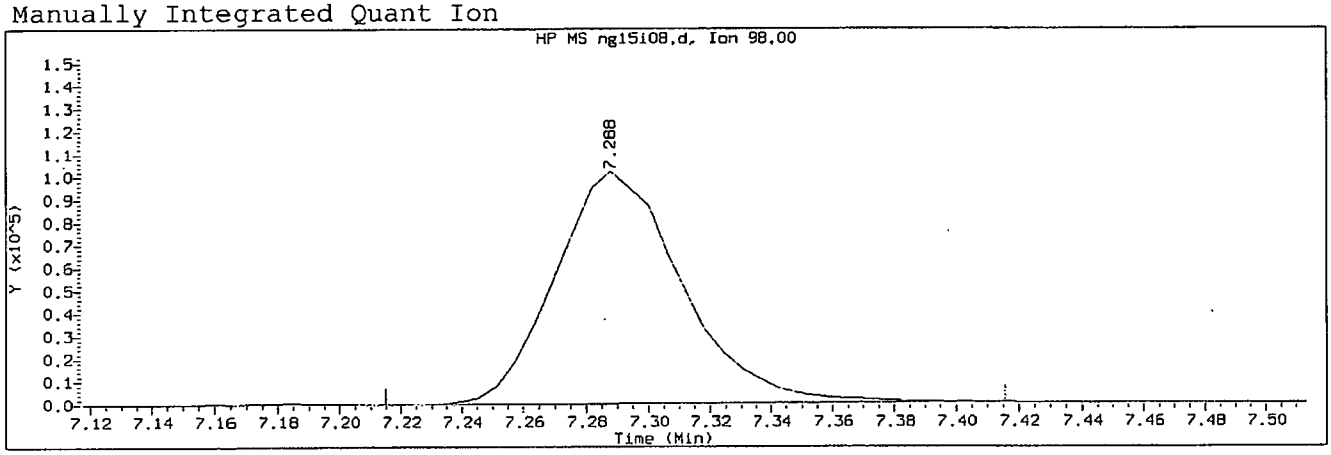
on 08/16/2012 at 20:06
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

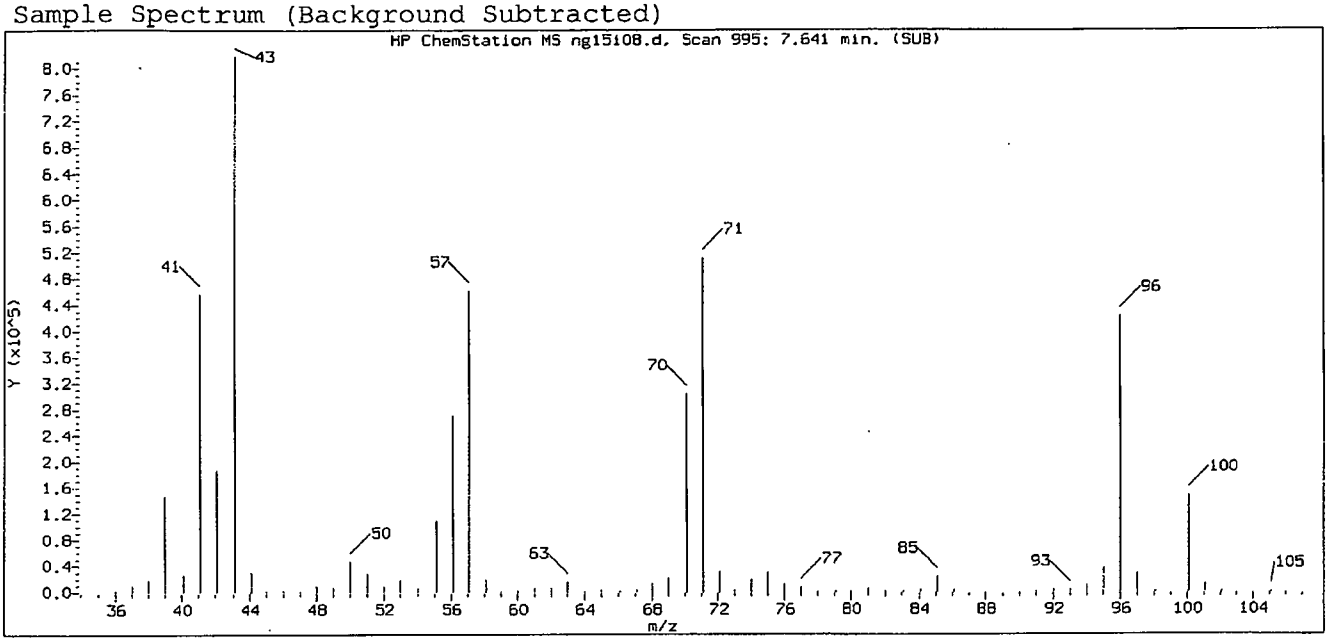
Compound Number	: 67		
Compound Name	: 1,2-Dichloroethane (mz 98)		
Scan Number	: 937		
Retention Time (minutes)	: 7.288		
Quant Ion	: 98.00		
Area (flag)	: 289426M		
On-Column Amount (ng)	: 283.7873		
Integration start scan	: 924	Integration stop scan:	957
Y at integration start	: 0	Y at integration end:	907

Reason for manual integration: improper integration

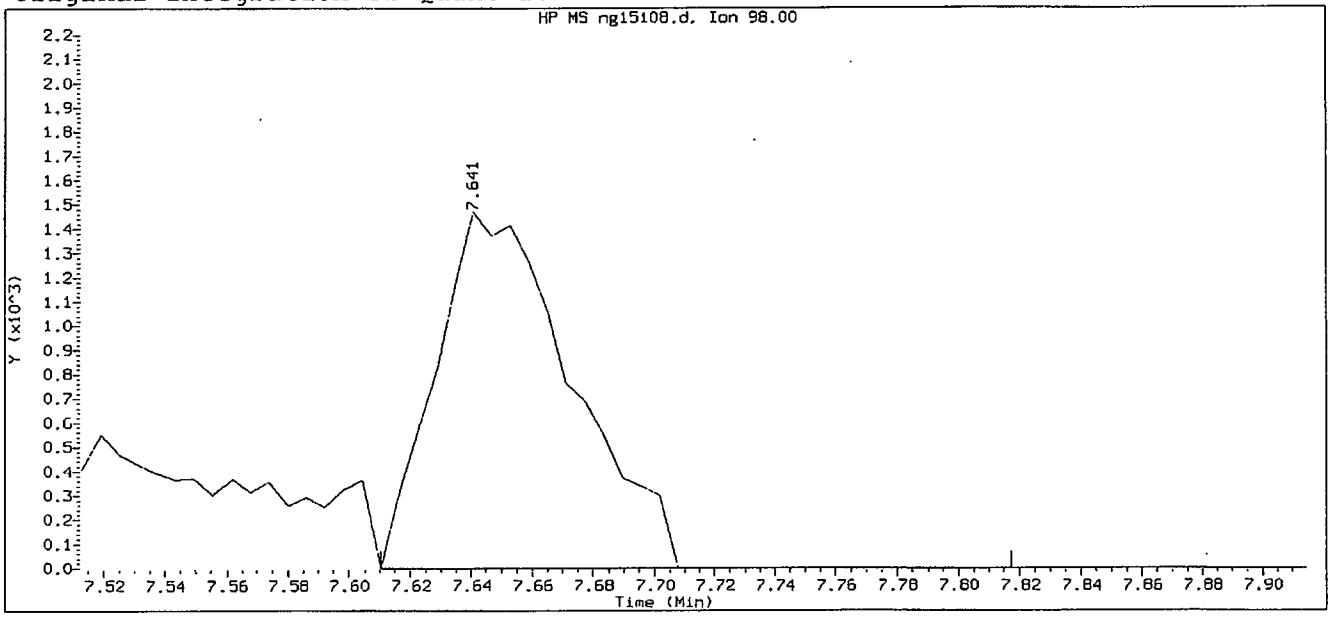
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 685 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 67		
Compound Name	: 1,2-Dichloroethane (mz 98)		
Scan Number	: 995		
Retention Time (minutes)	: 7.641		
Quant Ion	: 98.00		
Area	: 4541		
On-column Amount (ng)	: 5.6830		
Integration start scan	: 989	Integration stop scan:	1023
Y at integration start	: 0	Y at integration end:	0

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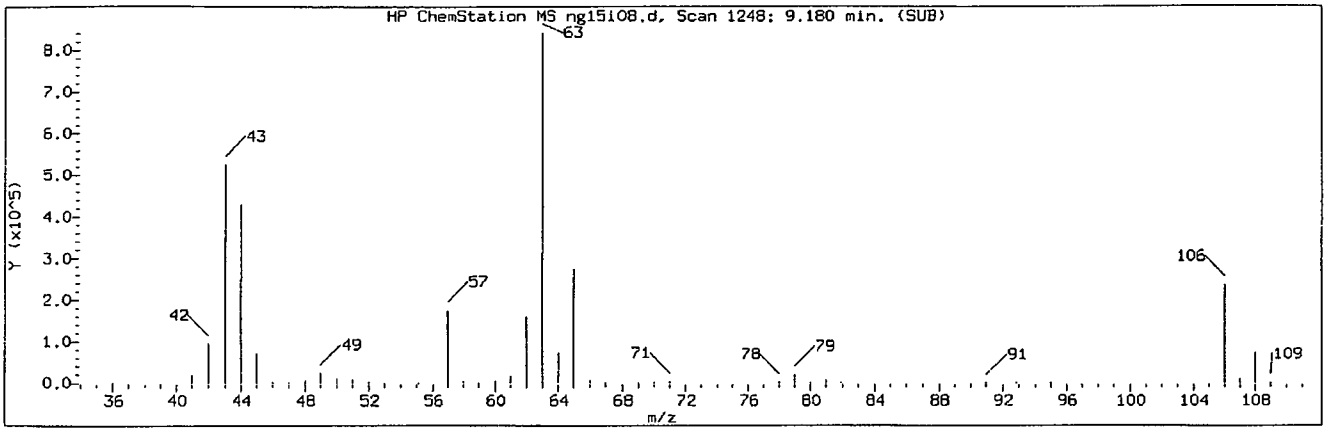
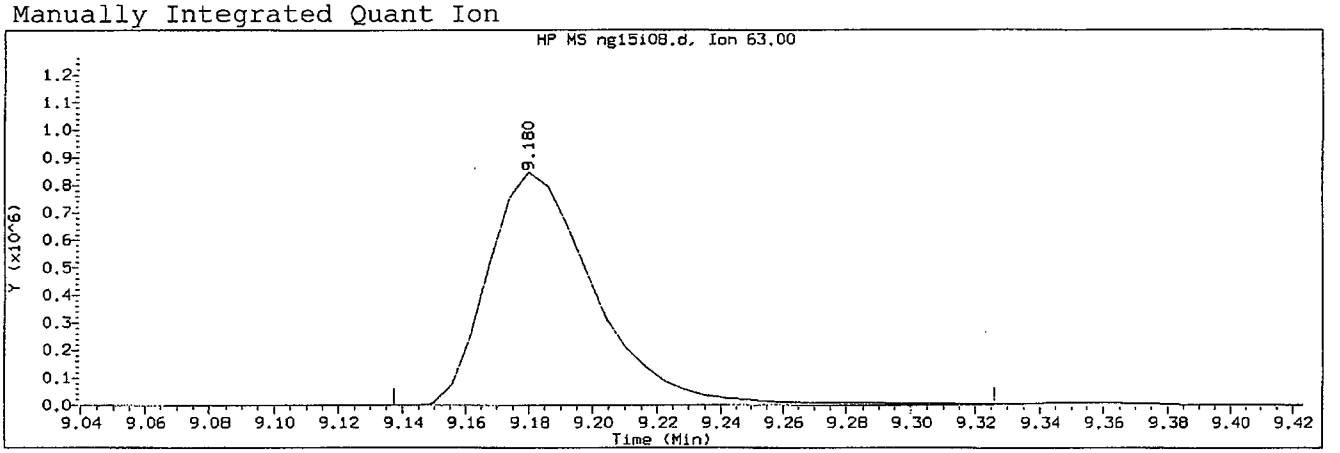
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

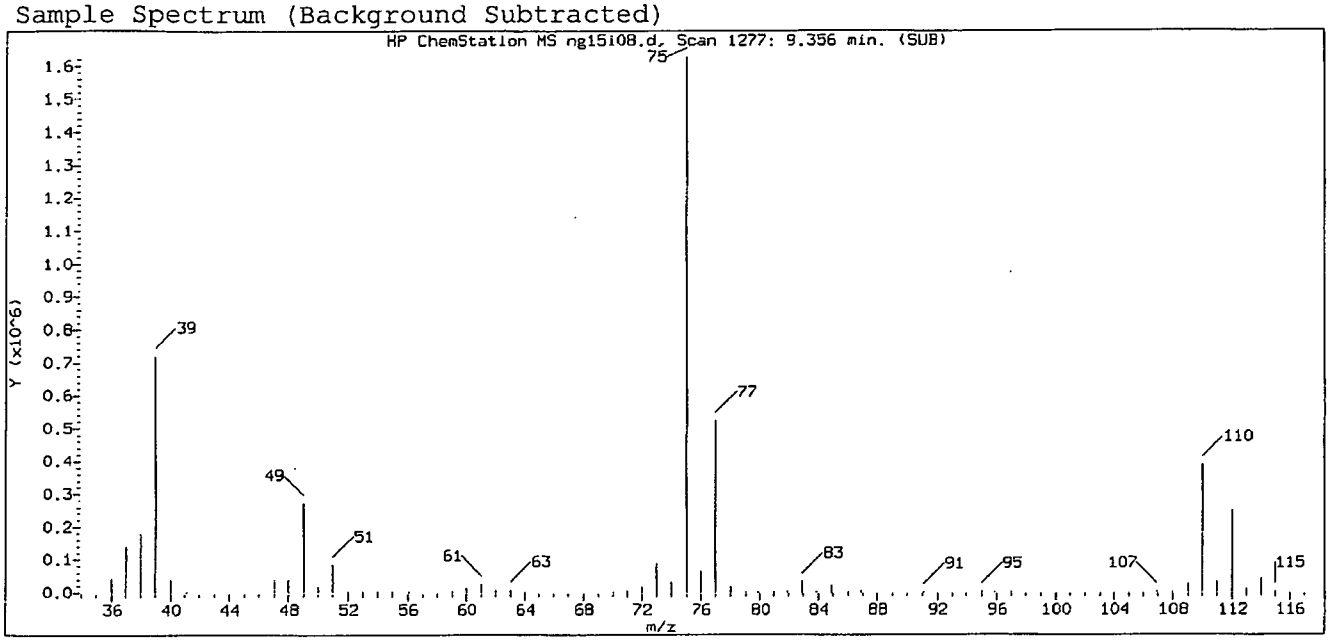
Compound Number	: 83		
Compound Name	: 2-Chloroethyl Vinyl Ether		
Scan Number	: 1248		
Retention Time (minutes)	: 9.180		
Quant Ion	: 63.00		
Area (flag)	: 1969983A		
On-Column Amount (ng)	: 334.7739		
Integration start scan	: 1240	Integration stop scan:	1271
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

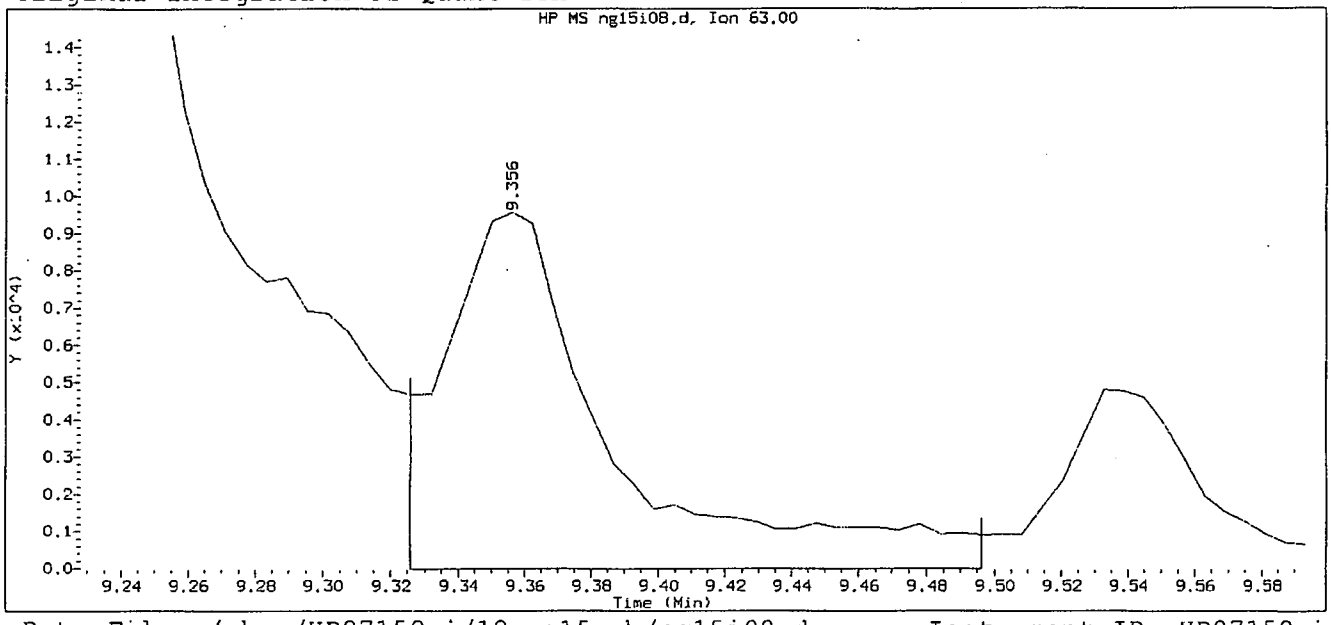
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 83		
Compound Name	: 2-Chloroethyl Vinyl Ether		
Scan Number	: 1277		
Retention Time (minutes)	: 9.356		
Quant Ion	: 63.00		
Area	: 33126		
On-column Amount (ng)	: 7.3293		
Integration start scan	: 1271	Integration stop scan:	1299
Y at integration start	: 0	Y at integration end:	0

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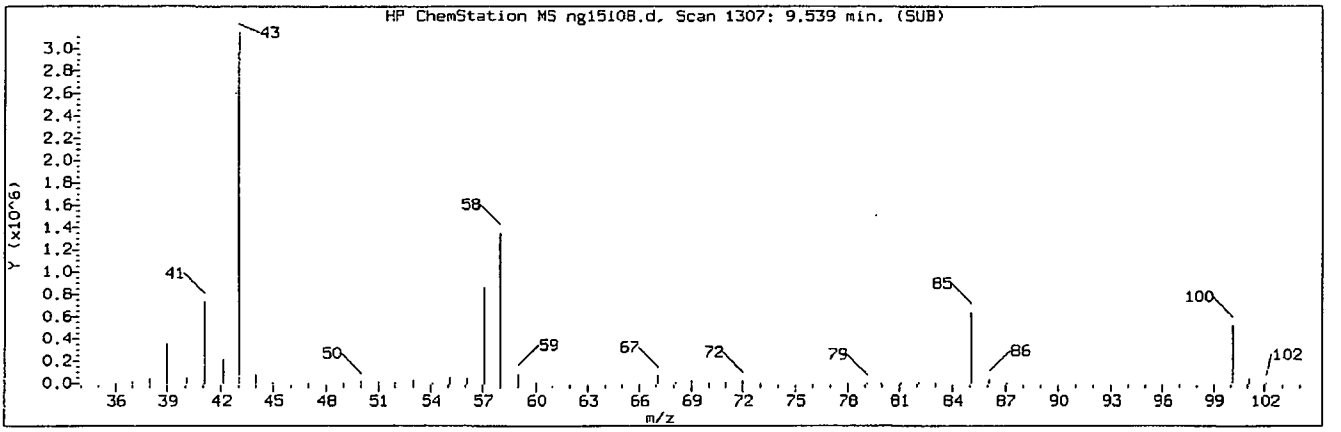
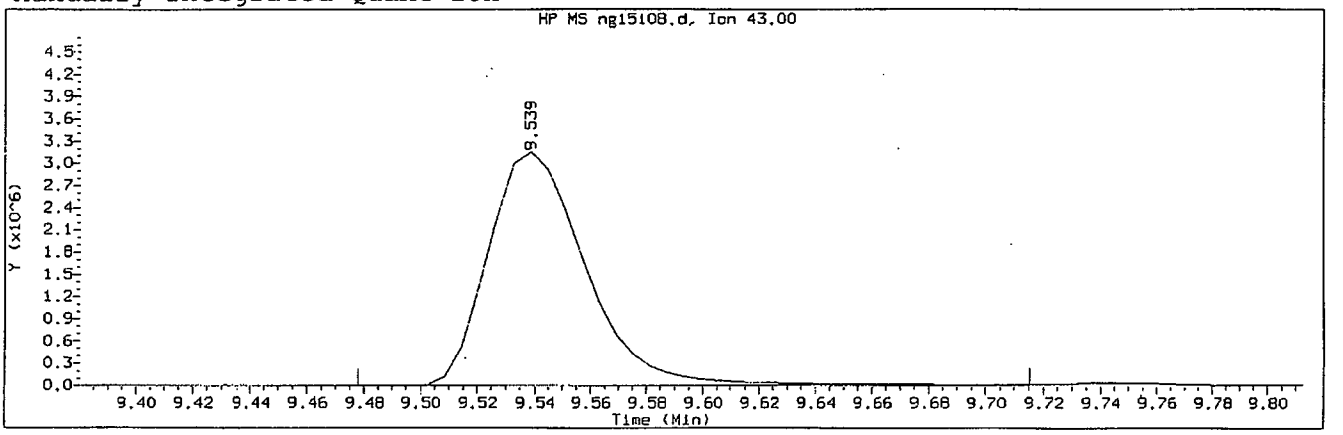
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

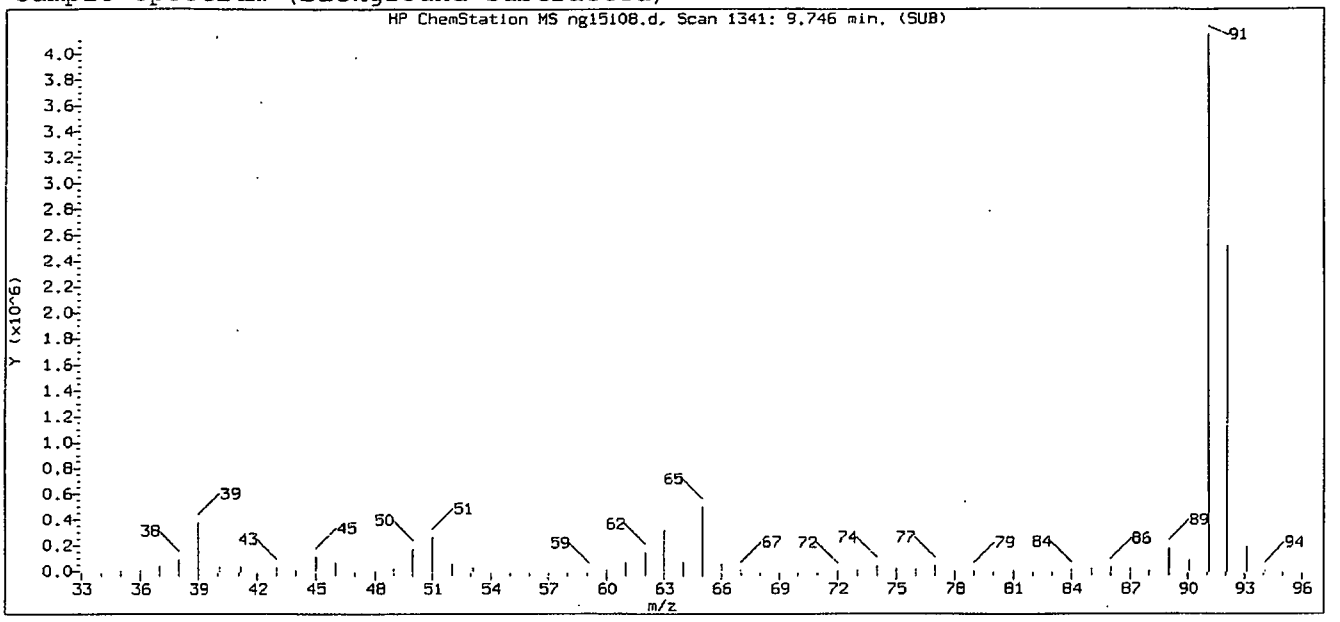
Compound Number	: 85		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 1307		
Retention Time (minutes)	: 9.539		
Quant Ion	: 43.00		
Area (flag)	: 7545992A		
On-Column Amount (ng)	: 582.3658		
Integration start scan	: 1296	Integration stop scan:	1335
Y at integration start	: 1803	Y at integration end:	1803

Reason for manual integration: improper integration

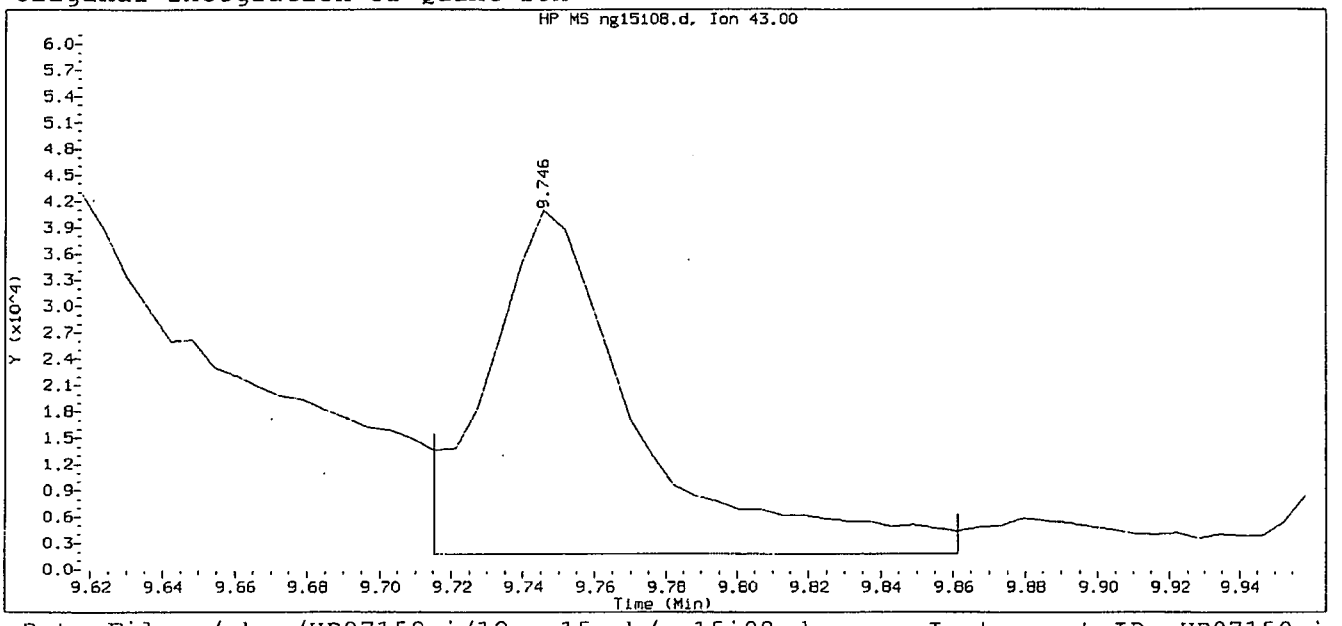
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 85		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 1341		
Retention Time (minutes)	: 9.746		
Quant Ion	: 43.00		
Area	: 113020		
On-column Amount (ng)	: 10.7449		
Integration start scan	: 1335	Integration stop scan:	1359
Y at integration start	: 1803	Y at integration end:	1803

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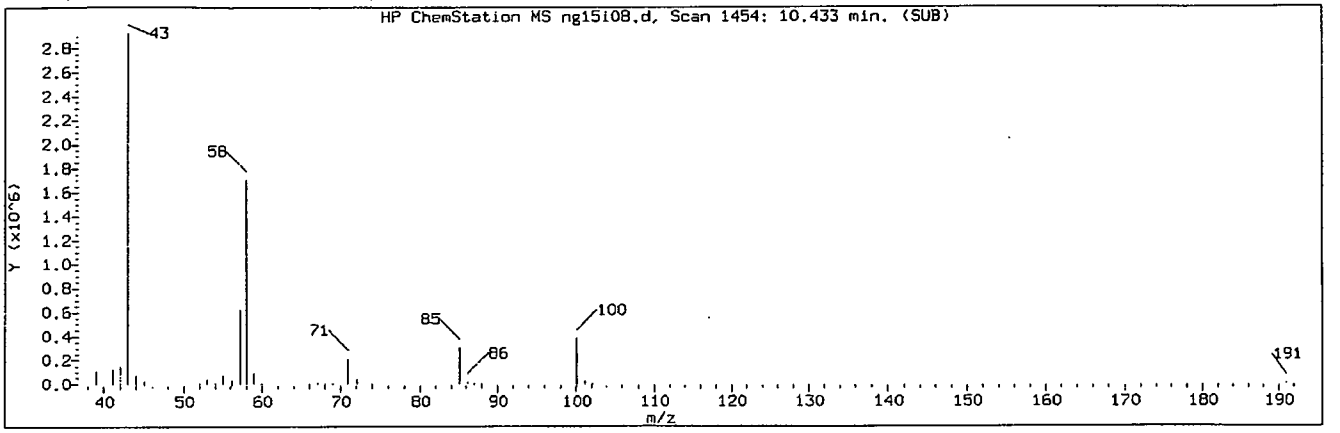
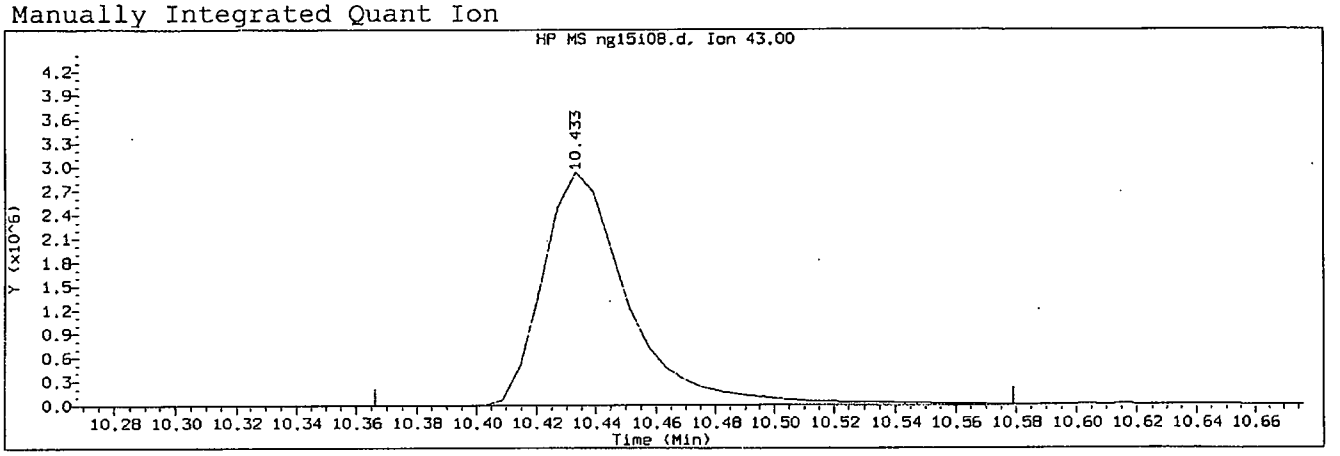
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

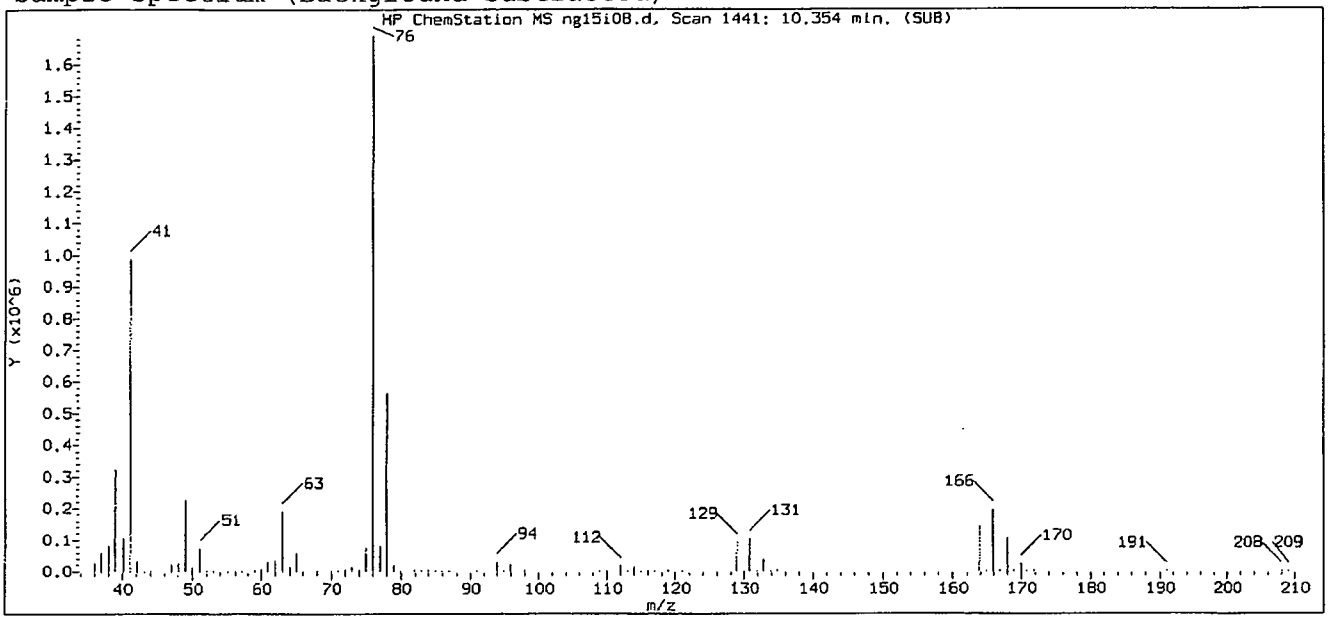
Compound Number	: 95		
Compound Name	: 2-Hexanone		
Scan Number	: 1454		
Retention Time (minutes)	: 10.433		
Quant Ion	: 43.00		
Area (flag)	: 5830065MA		
On-Column Amount (ng)	: 605.5349		
Integration start scan	: 1442	Integration stop scan:	1477
Y at integration start	: 1513	Y at integration end:	1513

Reason for manual integration: improper integration

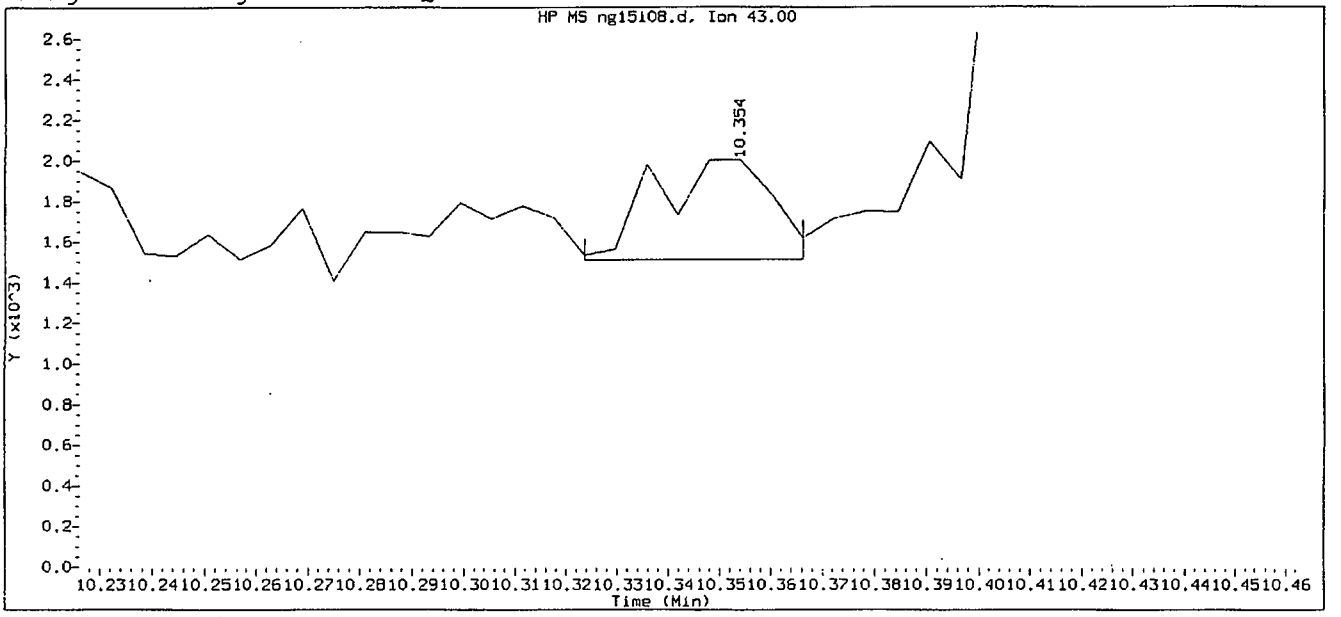
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 95		
Compound Name	: 2-Hexanone		
Scan Number	: 1441		
Retention Time (minutes)	: 10.354		
Quant Ion	: 43.00		
Area	: 772		
On-column Amount (ng)	: 0.1122		
Integration start scan	: 1435	Integration stop scan:	1442
Y at integration start	: 1513	Y at integration end:	1513

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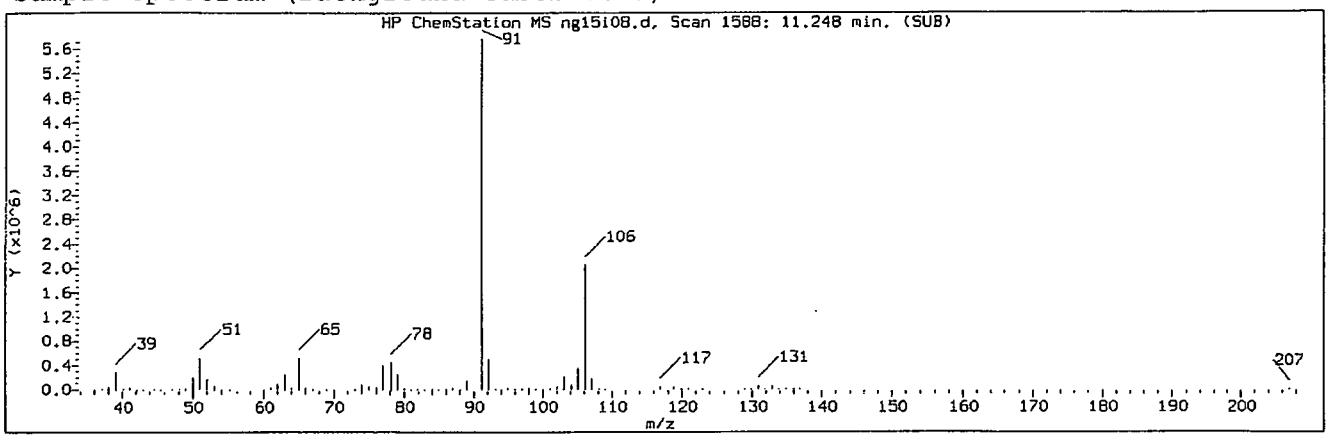
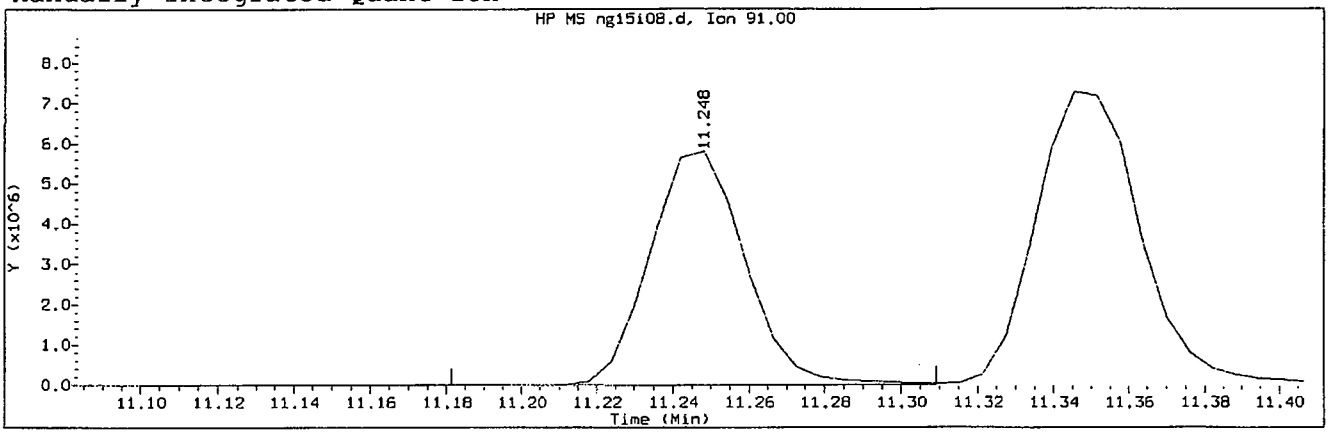
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

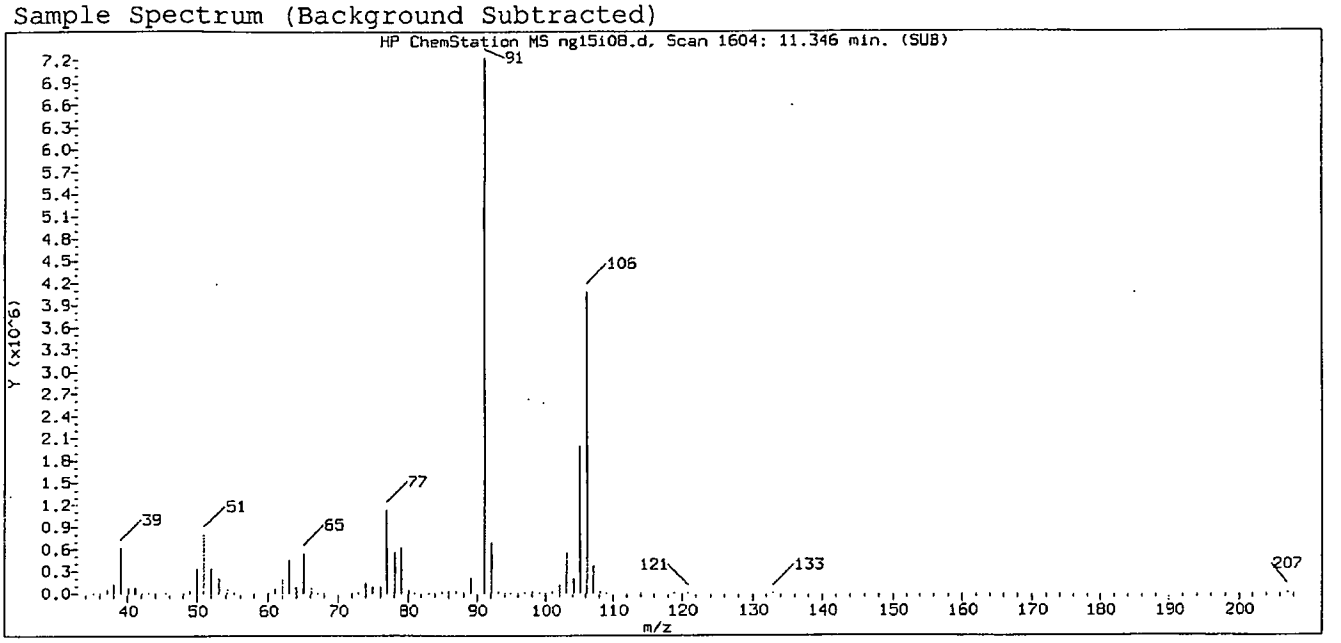
Compound Number	: 102		
Compound Name	: Ethylbenzene		
Scan Number	: 1588		
Retention Time (minutes)	: 11.248		
Quant Ion	: 91.00		
Area (flag)	: 10065312A		
On-Column Amount (ng)	: 271.8636		
Integration start scan	: 1576	Integration stop scan:	1597
Y at integration start	: 257	Y at integration end:	257

Reason for manual integration: improper integration

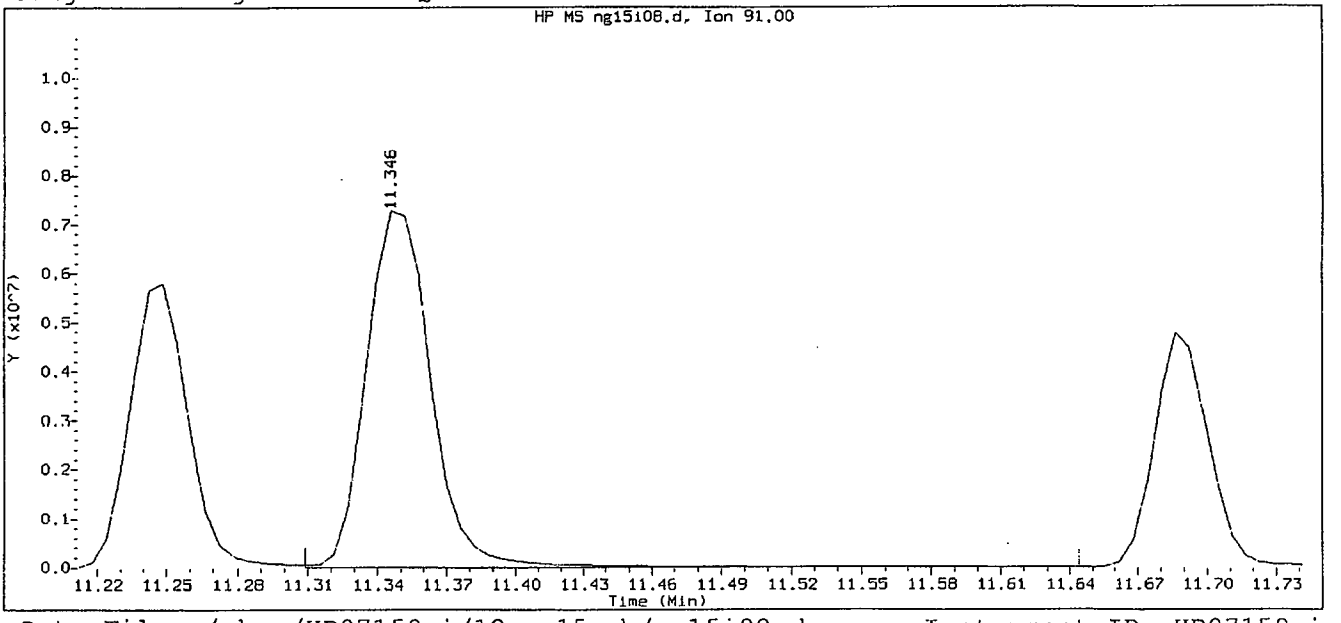
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:06 Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 102		
Compound Name	: Ethylbenzene		
Scan Number	: 1604		
Retention Time (minutes)	: 11.346		
Quant Ion	: 91.00		
Area	: 14213208		
On-column Amount (ng)	: 391.0101		
Integration start scan	: 1597	Integration stop scan:	1652
Y at integration start	: 257	Y at integration end:	257

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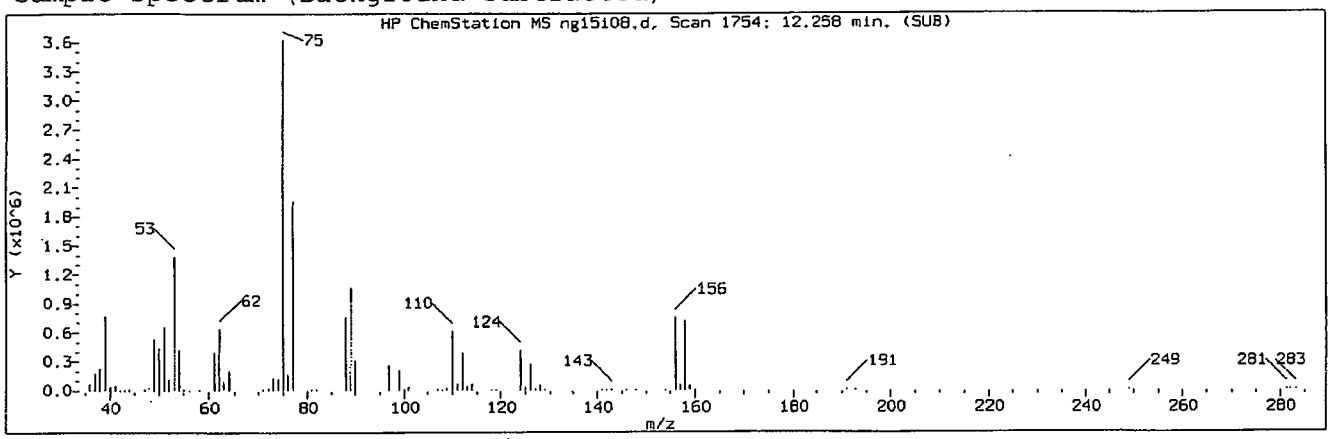
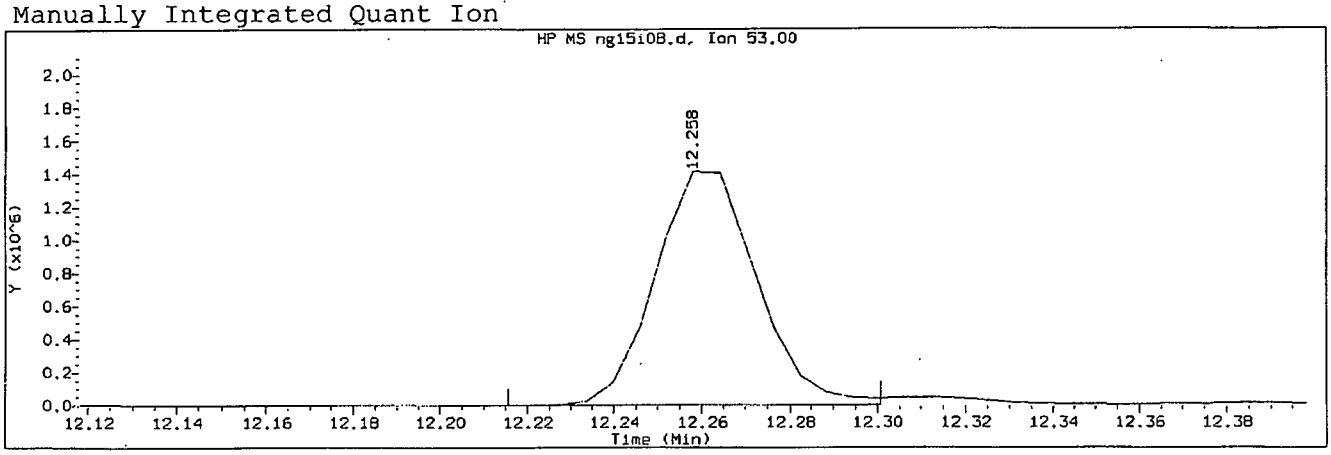
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

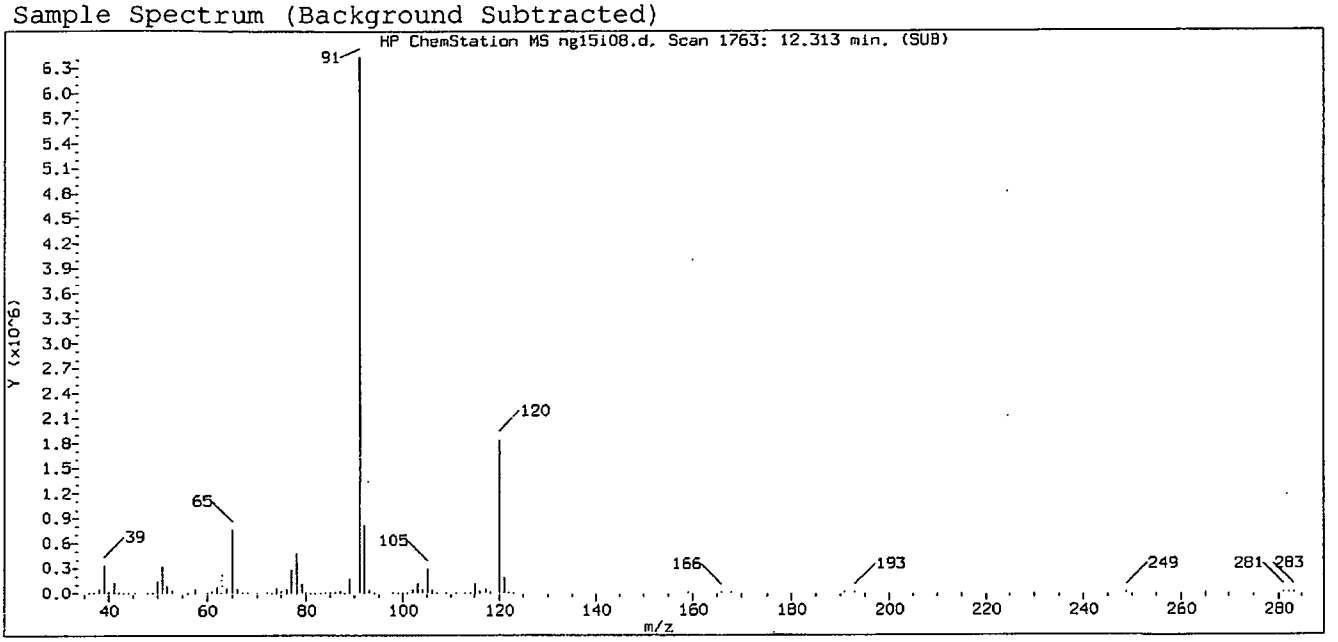
Compound Number	: 118		
Compound Name	: trans-1,4-Dichloro-2-Butene		
Scan Number	: 1754		
Retention Time (minutes)	: 12.258		
Quant Ion	: 53.00		
Area (flag)	: 2275385MA		
On-Column Amount (ng)	: 688.2153		
Integration start scan	: 1746	Integration stop scan:	1760
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

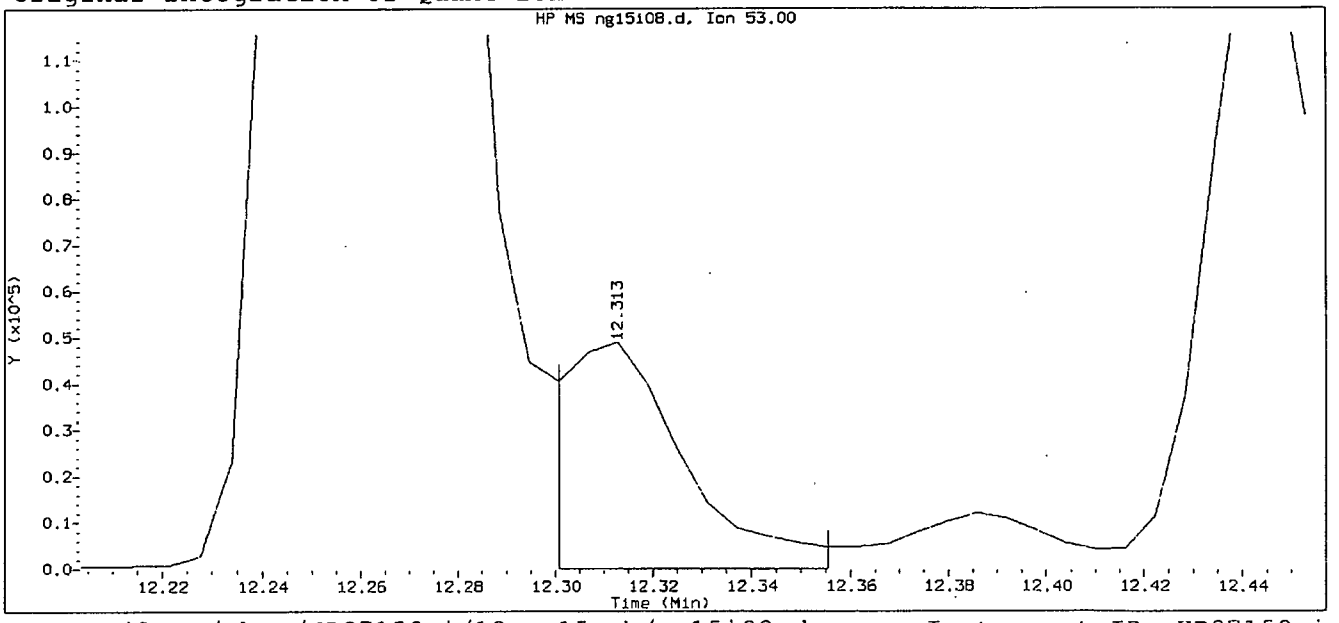
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:06 Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 118		
Compound Name	: trans-1,4-Dichloro-2-Butene		
Scan Number	: 1763		
Retention Time (minutes)	: 12.313		
Quant Ion	: 53.00		
Area	: 80367		
On-column Amount (ng)	: 32.2049		
Integration start scan	: 1760	Integration stop scan:	1769
Y at integration start	: 0	Y at integration end:	0

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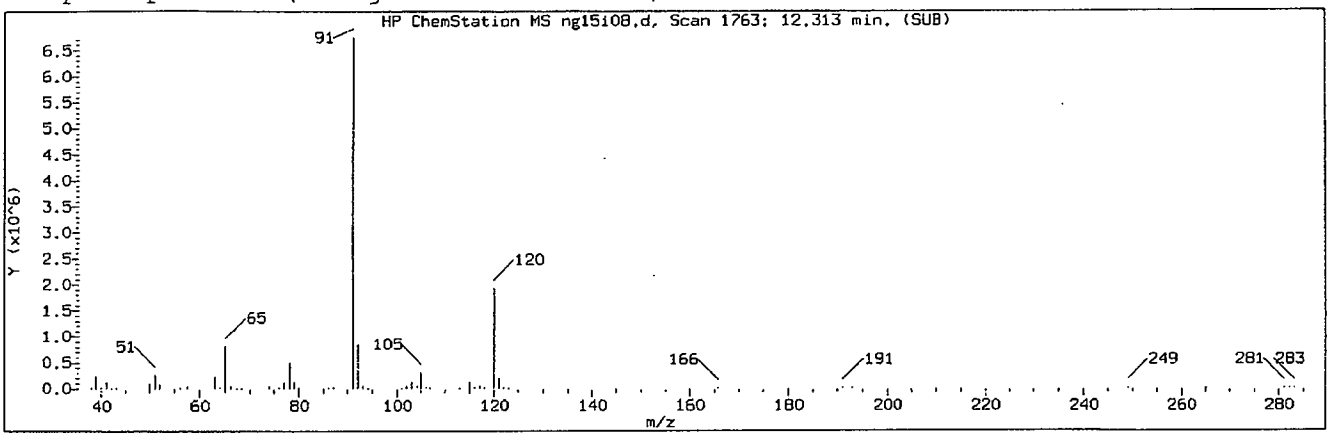
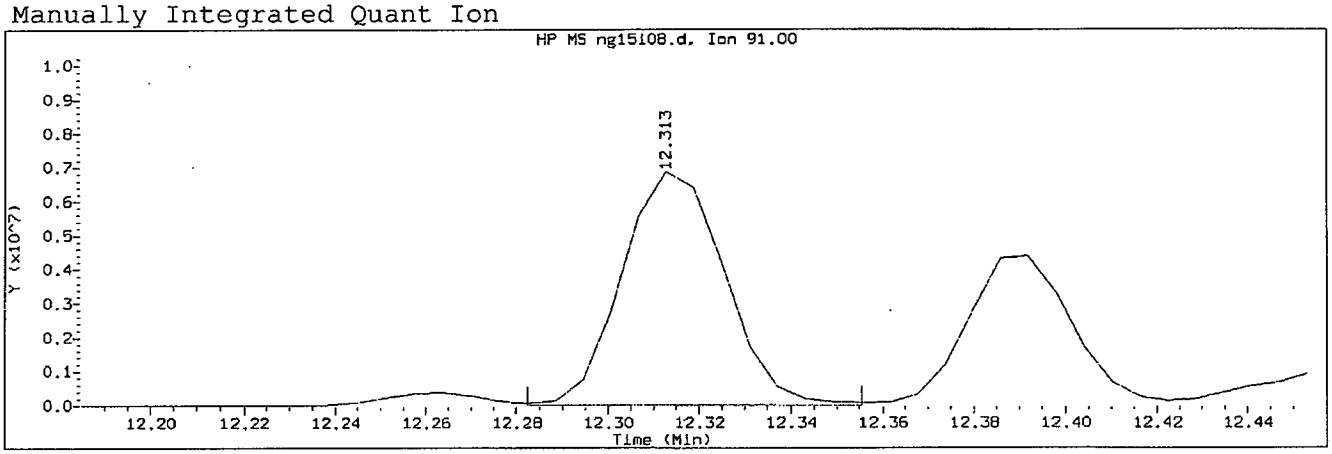
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

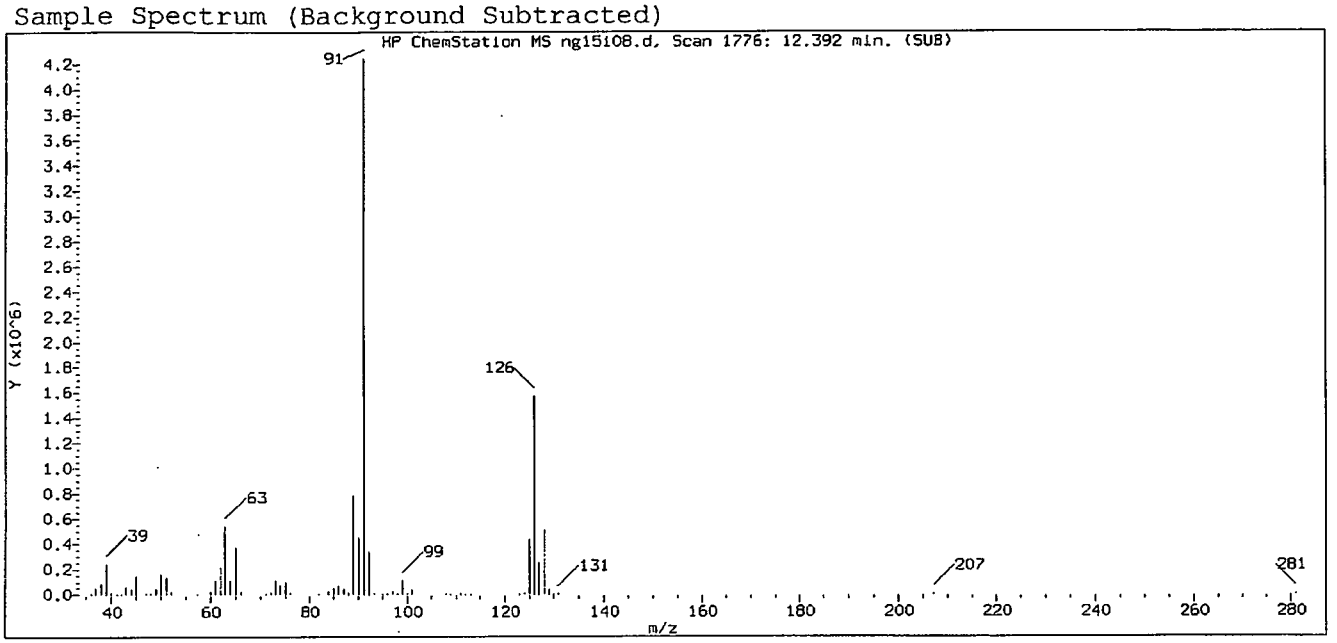
Compound Number	: 120		
Compound Name	: n-Propylbenzene		
Scan Number	: 1763		
Retention Time (minutes)	: 12.313		
Quant Ion	: 91.00		
Area (flag)	: 10683164A		
On-Column Amount (ng)	: 259.4078		
Integration start scan	: 1757	Integration stop scan:	1769
Y at integration start	: 987	Y at integration end:	987

Reason for manual integration: improper integration

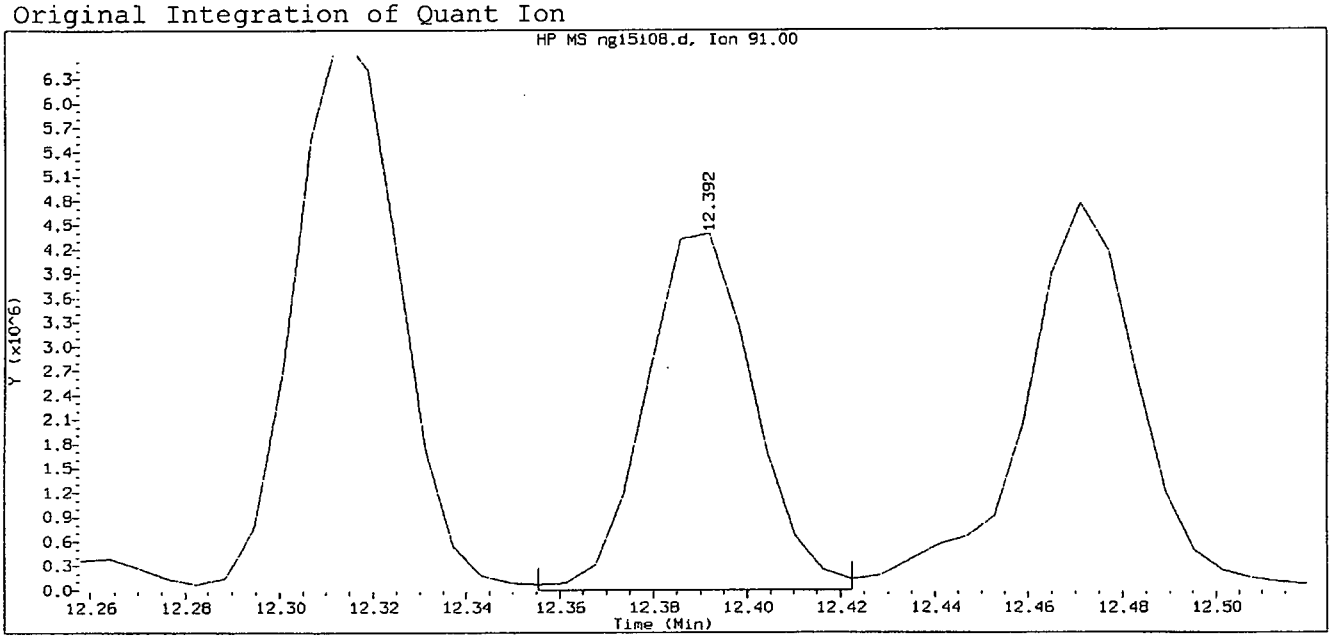
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 08/16/2012 at 20:06
Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 120		
Compound Name	: n-Propylbenzene		
Scan Number	: 1776		
Retention Time (minutes)	: 12.392		
Quant Ion	: 91.00		
Area	: 6990878		
On-column Amount (ng)	: 198.4353		
Integration start scan	: 1769	Integration stop scan:	1780
Y at integration start	: 987	Y at integration end:	987

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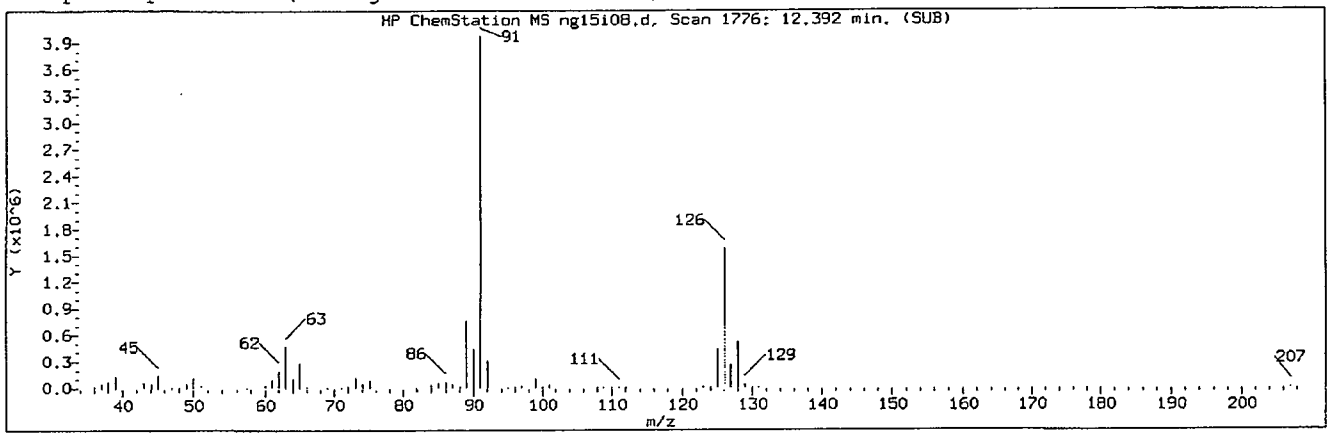
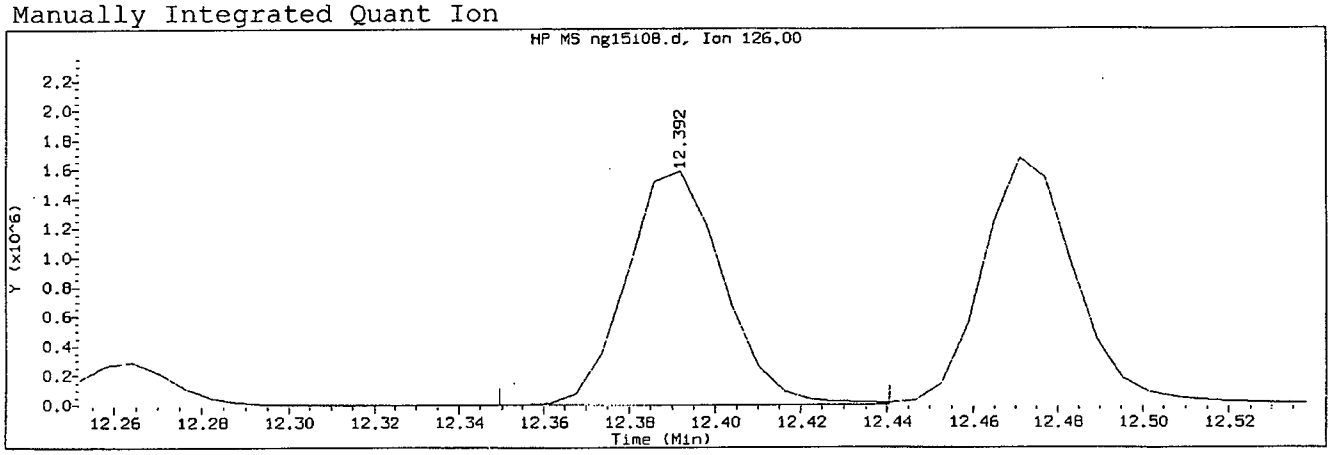
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

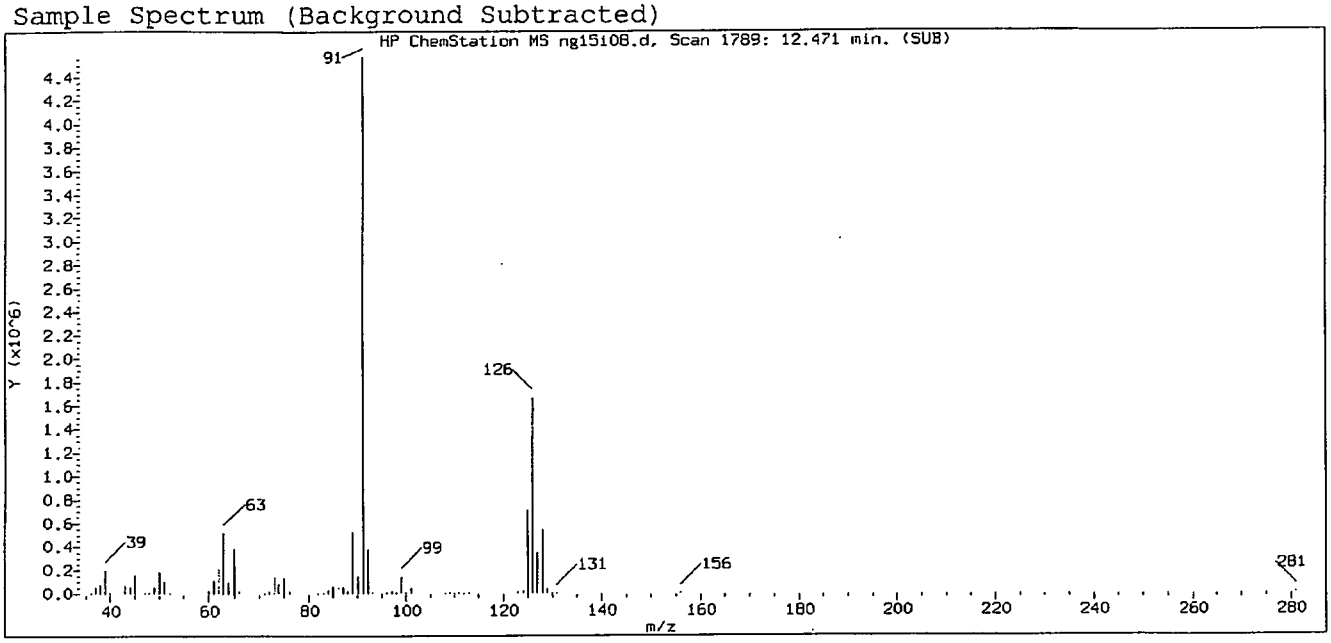
Compound Number	: 121		
Compound Name	: 2-Chlorotoluene		
Scan Number	: 1776		
Retention Time (minutes)	: 12.392		
Quant Ion	: 126.00		
Area (flag)	: 2465880A		
On-Column Amount (ng)	: 281.4862		
Integration start scan	: 1768	Integration stop scan:	1783
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

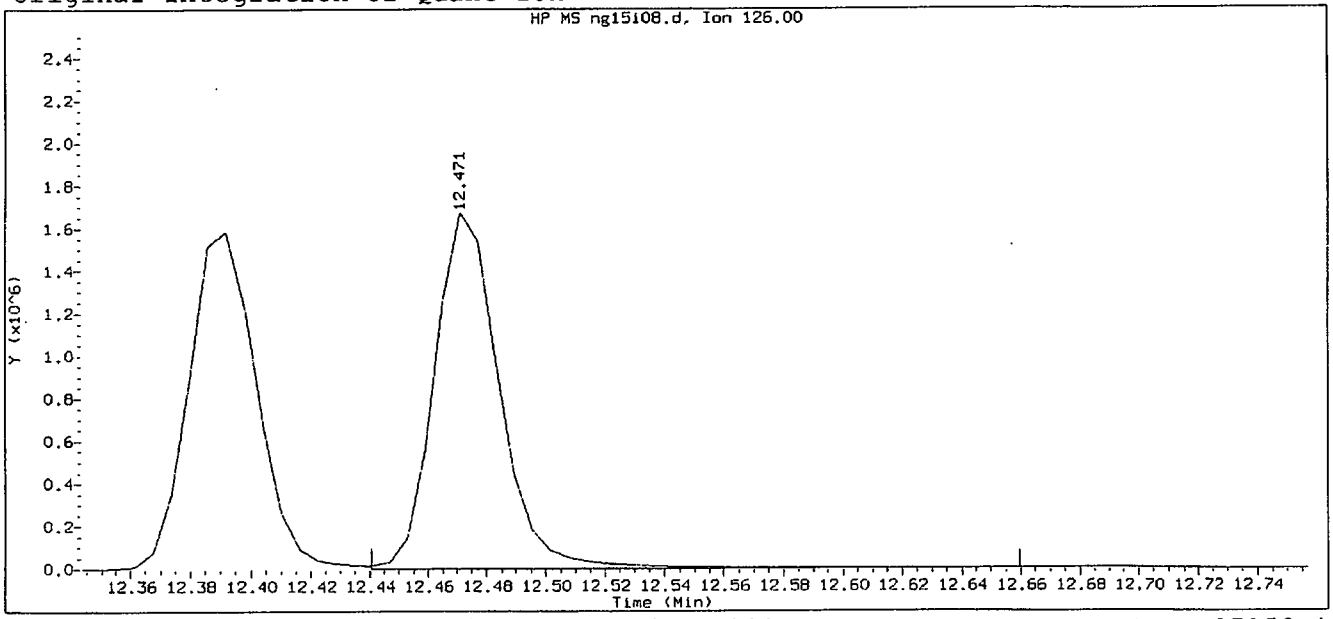
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 121		
Compound Name	: 2-Chlorotoluene		
Scan Number	: 1789		
Retention Time (minutes)	: 12.471		
Quant Ion	: 126.00		
Area	: 2594402		
On-column Amount (ng)	: 321.4487		
Integration start scan	: 1783	Integration stop scan:	1819
Y at integration start	: 0	Y at integration end:	0

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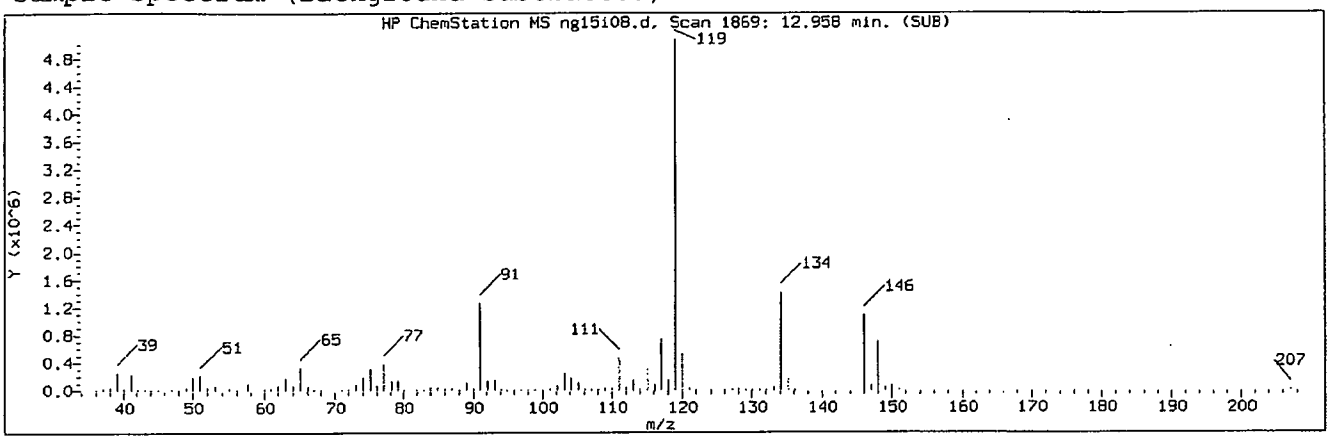
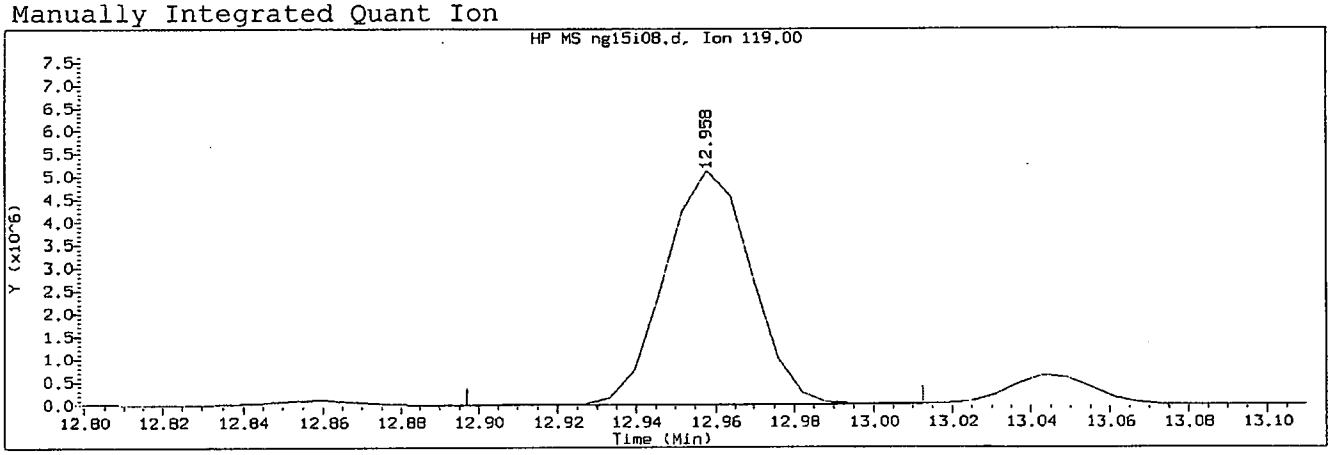
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

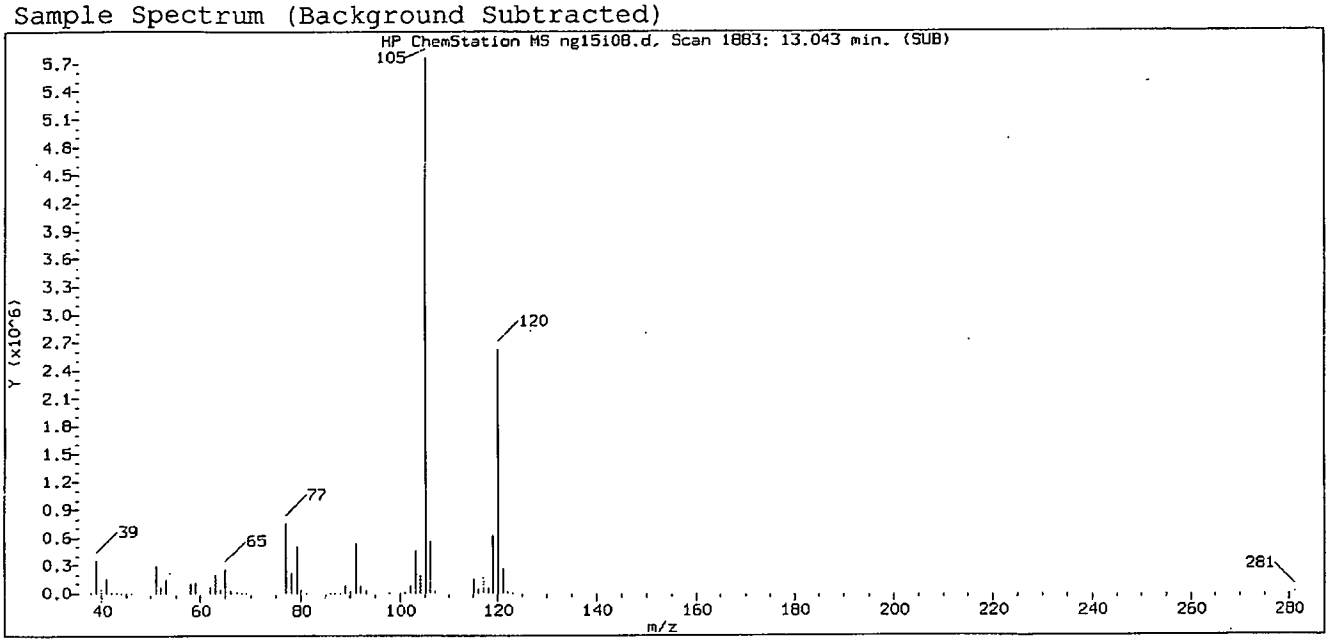
Compound Number	: 128		
Compound Name	: p-Isopropyltoluene		
Scan Number	: 1869		
Retention Time (minutes)	: 12.958		
Quant Ion	: 119.00		
Area (flag)	: 7777909A		
On-Column Amount (ng)	: 253.9127		
Integration start scan	: 1858	Integration stop scan:	1877
Y at integration start	: 303	Y at integration end:	303

Reason for manual integration: improper integration

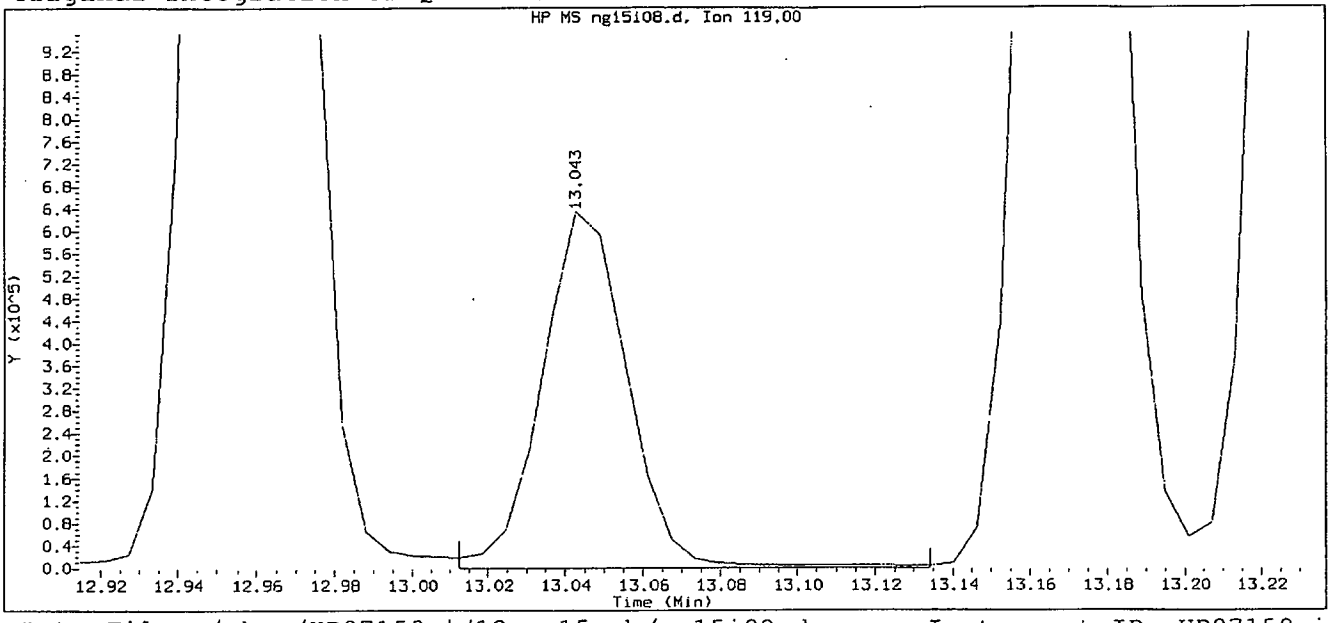
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 08/16/2012 at 20:06
Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 128		
Compound Name	: p-Isopropyltoluene		
Scan Number	: 1883		
Retention Time (minutes)	: 13.043		
Quant Ion	: 119.00		
Area	: 968540		
On-column Amount (ng)	: 40.3091		
Integration start scan	: 1877	Integration stop scan:	1897
Y at integration start	: 303	Y at integration end:	303

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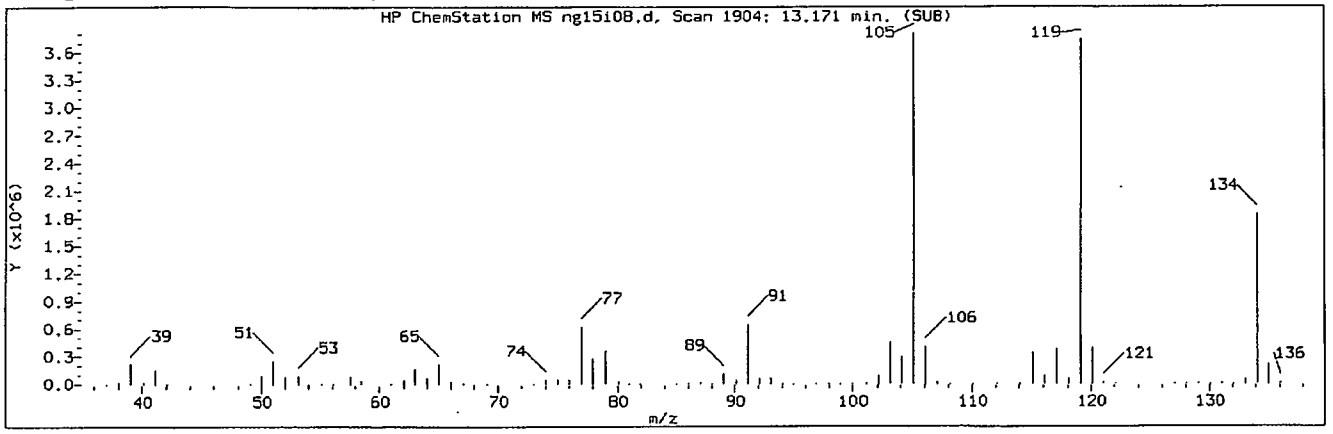
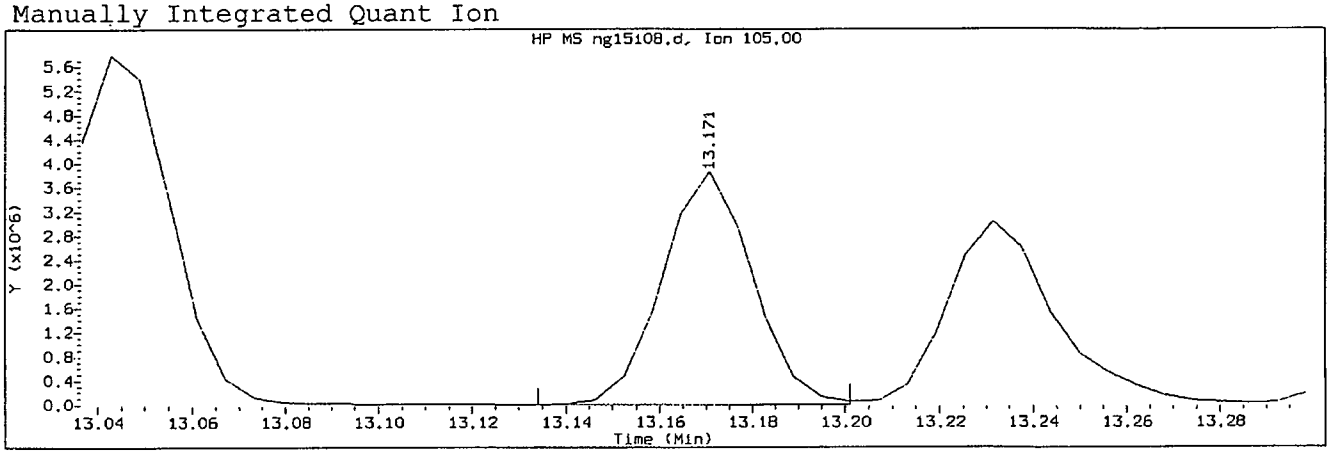
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

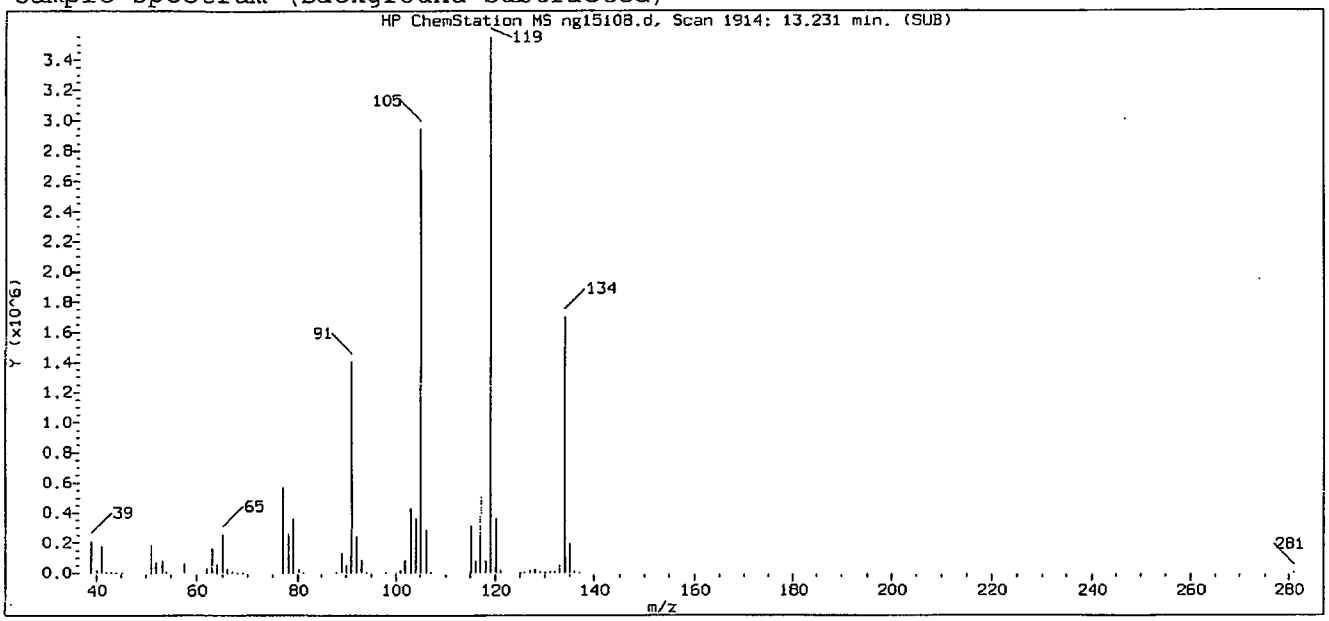
Compound Number	: 134		
Compound Name	: 1,3-Diethylbenzene		
Scan Number	: 1904		
Retention Time (minutes)	: 13.171		
Quant Ion	: 105.00		
Area (flag)	: 5182484A		
On-Column Amount (ng)	: 273.7914		
Integration start scan	: 1897	Integration stop scan:	1908
Y at integration start	: 887	Y at integration end:	887

Reason for manual integration: improper integration

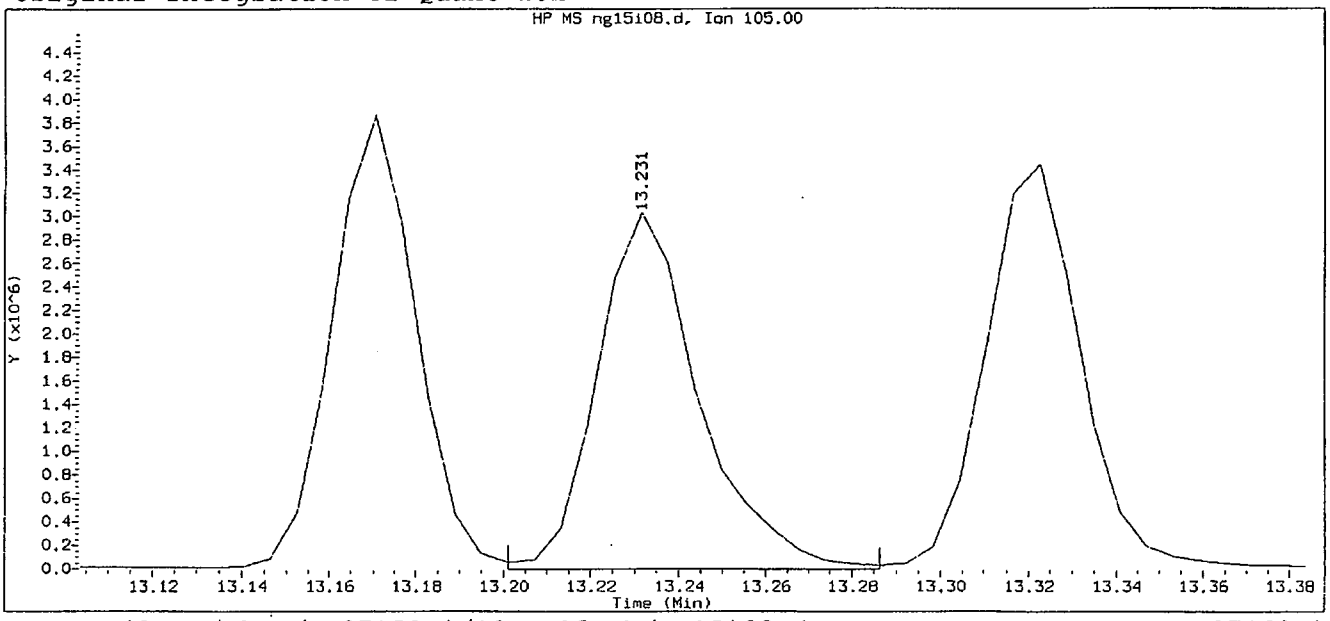
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 134		
Compound Name	: 1,3-Diethylbenzene		
Scan Number	: 1914		
Retention Time (minutes)	: 13.231		
Quant Ion	: 105.00		
Area	: 4856514		
On-column Amount (ng)	: 287.1370		
Integration start scan	: 1908	Integration stop scan:	1922
Y at integration start	: 887	Y at integration end:	887

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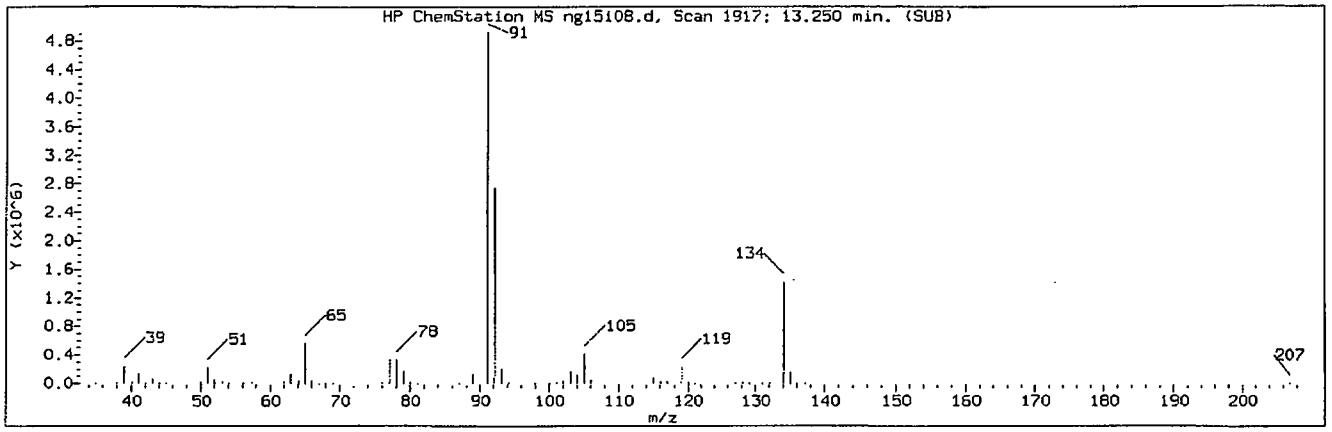
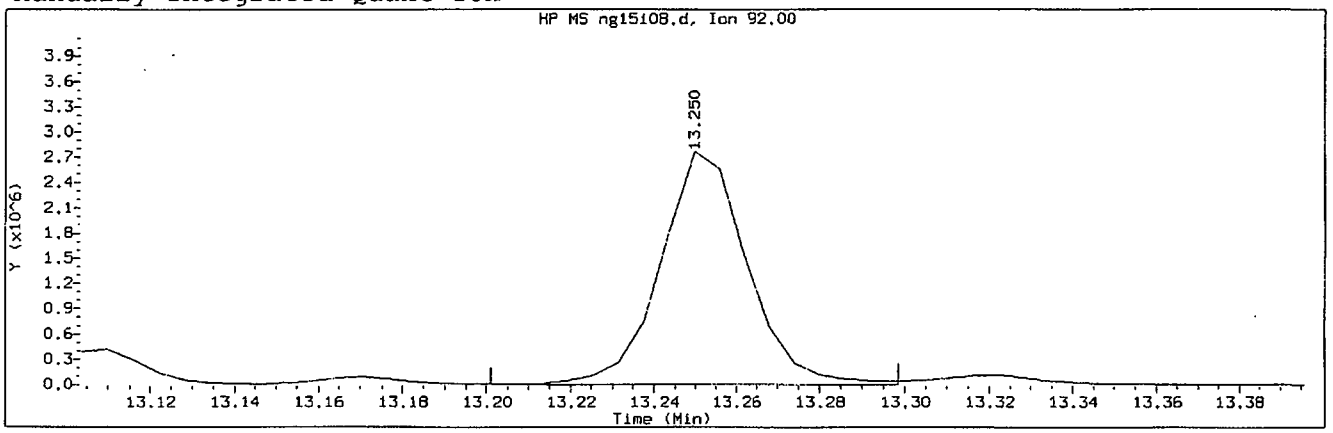
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

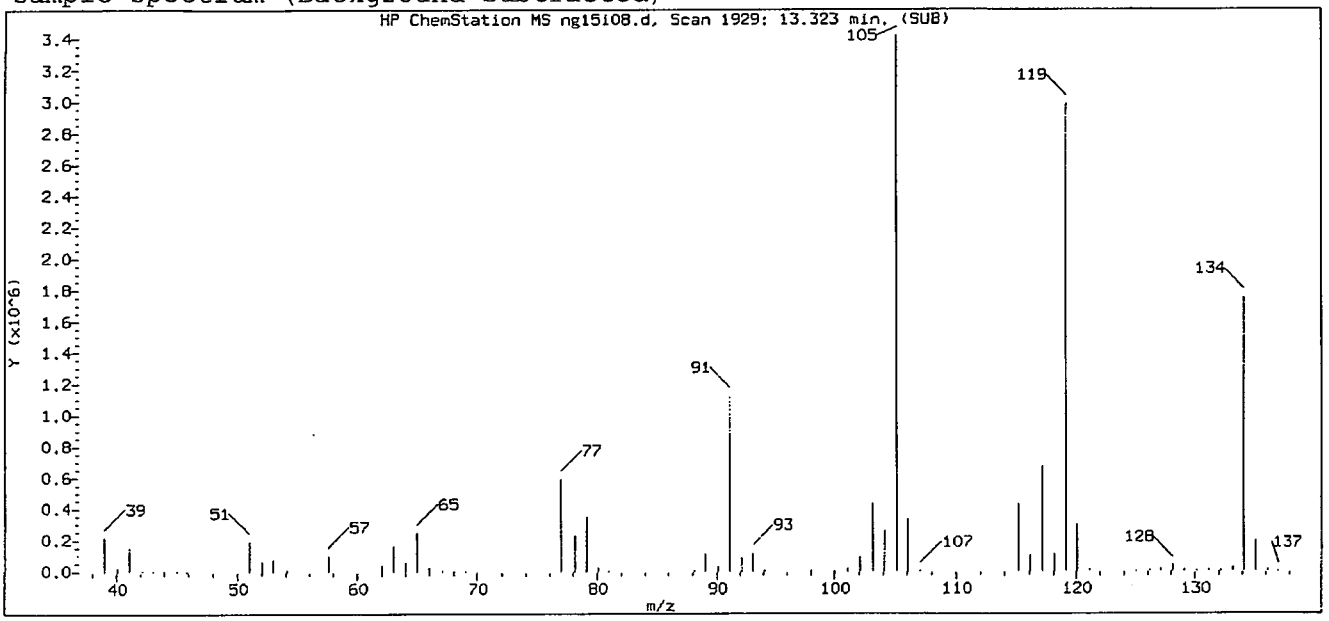
Compound Number	: 136		
Compound Name	: n-Butylbenzene		
Scan Number	: 1917		
Retention Time (minutes)	: 13.250		
Quant Ion	: 92.00		
Area (flag)	: 4043432A		
On-Column Amount (ng)	: 250.2665		
Integration start scan	: 1908	Integration stop scan:	1924
Y at integration start	: 281	Y at integration end:	281

Reason for manual integration: improper integration

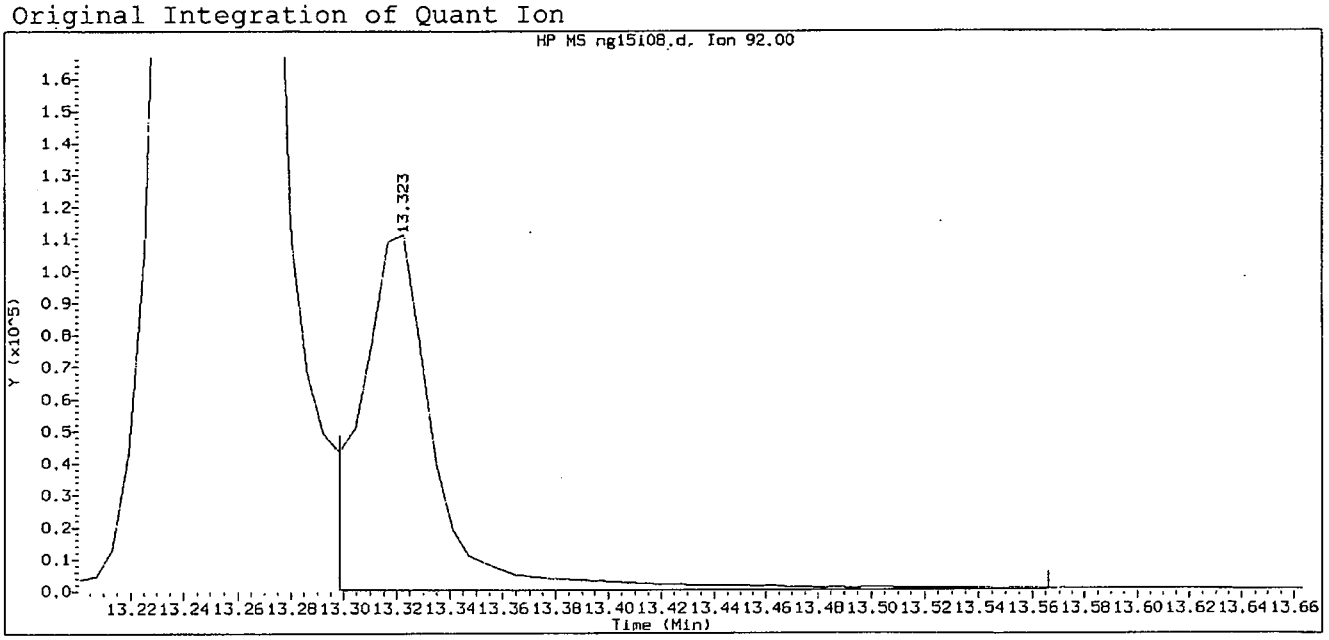
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 136		
Compound Name	: n-Butylbenzene		
Scan Number	: 1929		
Retention Time (minutes)	: 13.323		
Quant Ion	: 92.00		
Area	: 212642		
On-column Amount (ng)	: 16.9661		
Integration start scan	: 1924	Integration stop scan:	1968
Y at integration start	: 281	Y at integration end:	281

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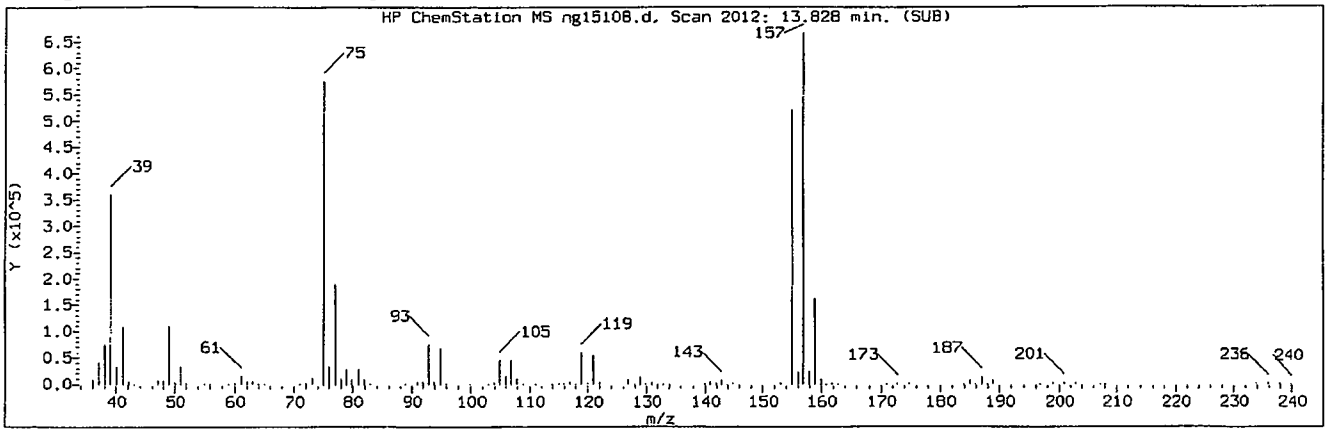
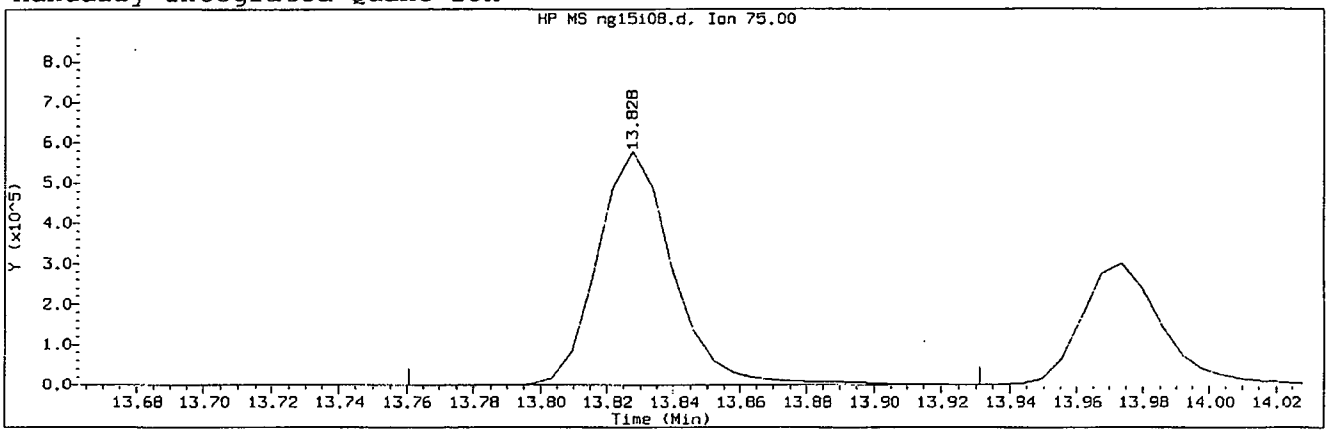
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 16-Aug-2012 19:18 sag03174

Sample Name: VSTD300 Lab Sample ID: VSTD300

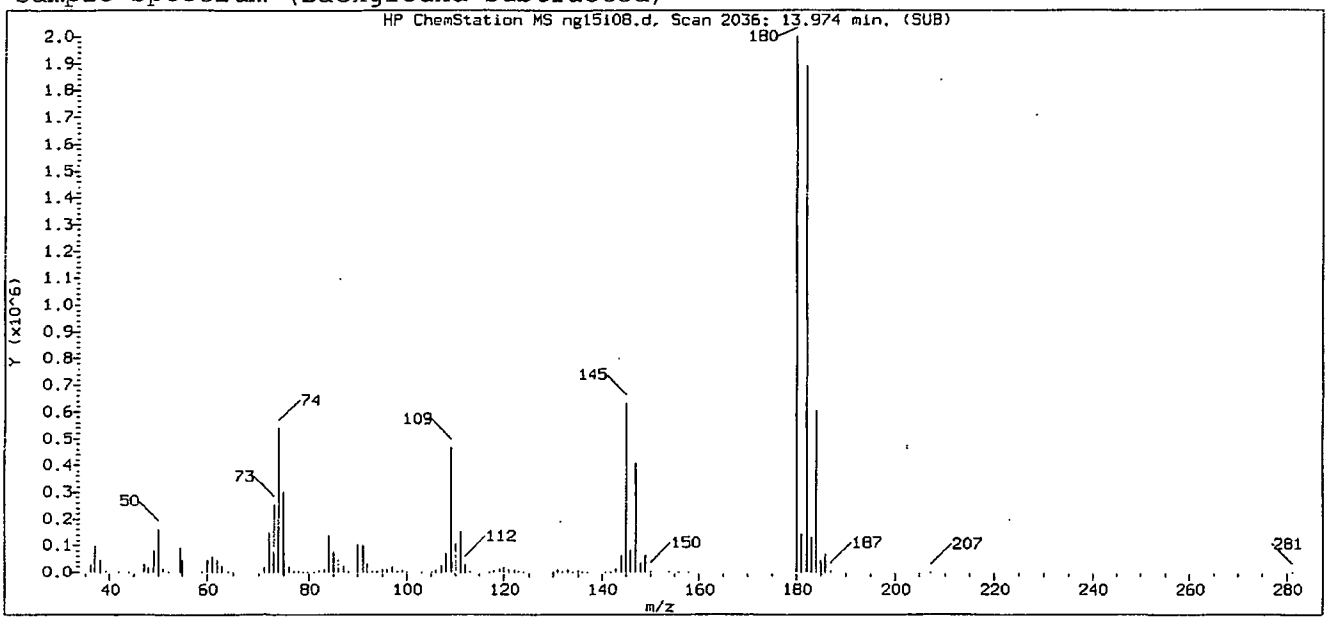
Compound Number	: 139		
Compound Name	: 1,2-Dibromo-3-Chloropropane		
Scan Number	: 2012		
Retention Time (minutes)	: 13.828		
Quant Ion	: 75.00		
Area (flag)	: 908834A		
On-Column Amount (ng)	: 297.8562		
Integration start scan	: 2000	Integration stop scan:	2028
Y at integration start	: 271	Y at integration end:	271

Reason for manual integration: improper integration

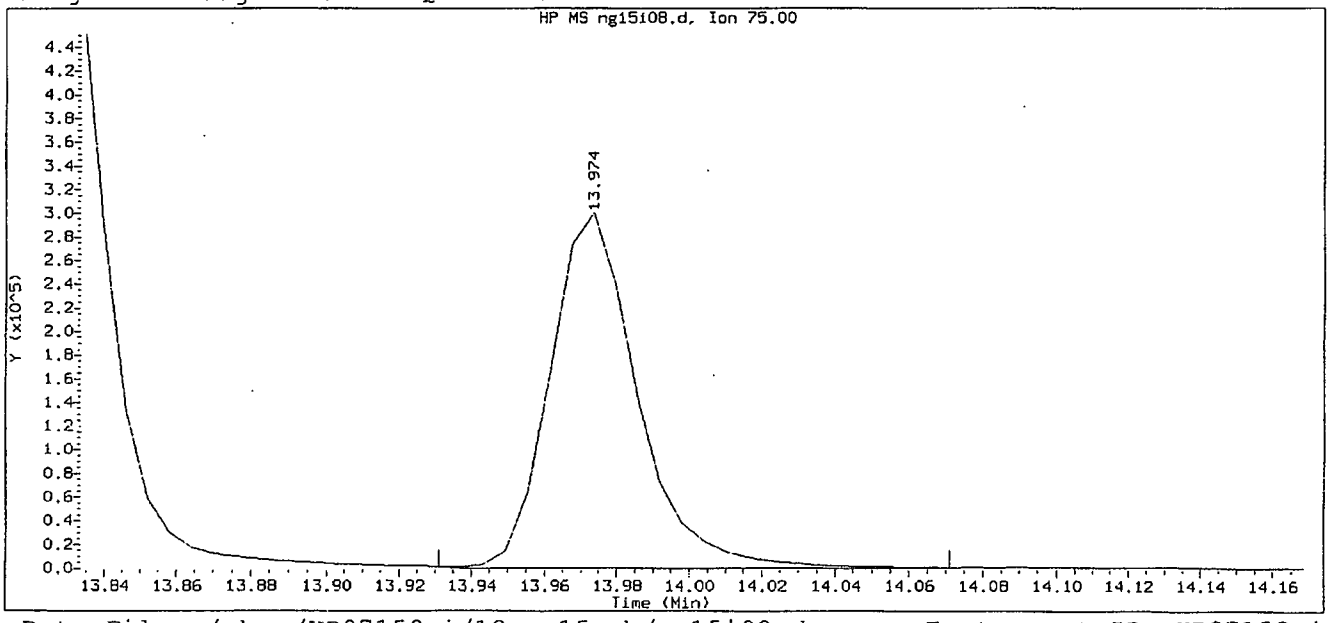
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:06 Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i08.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:01 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:21
Date, time and analyst ID of latest file update: 15-Aug-2012 15:21 Automation

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 139		
Compound Name	: 1,2-Dibromo-3-Chloropropane		
Scan Number	: 2036		
Retention Time (minutes)	: 13.974		
Quant Ion	: 75.00		
Area	: 505652		
On-column Amount (ng)	: 193.7730		
Integration start scan	: 2028	Integration stop scan:	2051
Y at integration start	: 271	Y at integration end:	271

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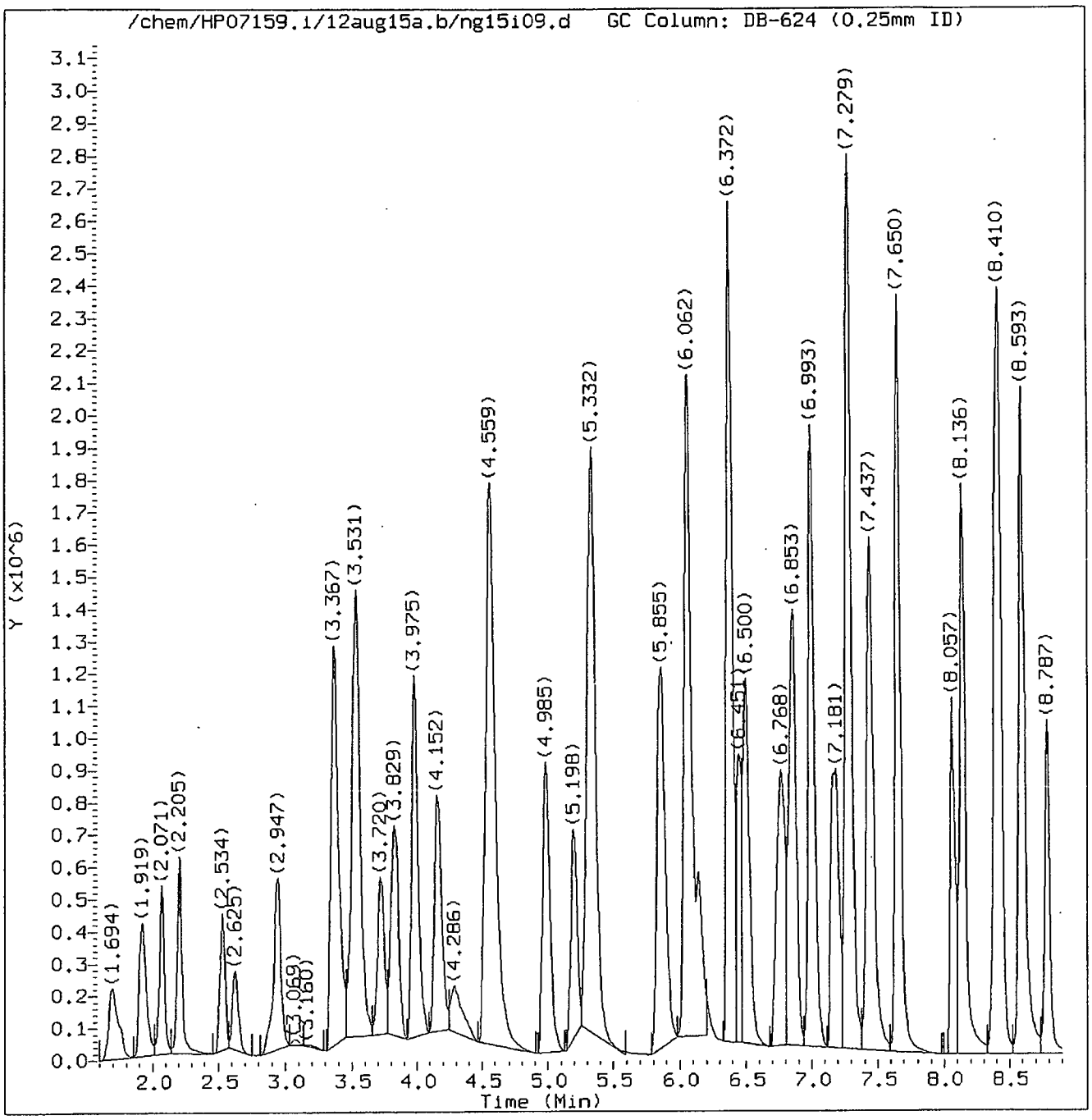
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d
Injection date and time: 15-AUG-2012 15:24

Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 15:45

Sublist used: 8260WI

Date, time and analyst ID of latest file update: 15-Aug-2012 16:01 sag03174

Sample Name: VSTD100

Lab Sample ID: VSTD100

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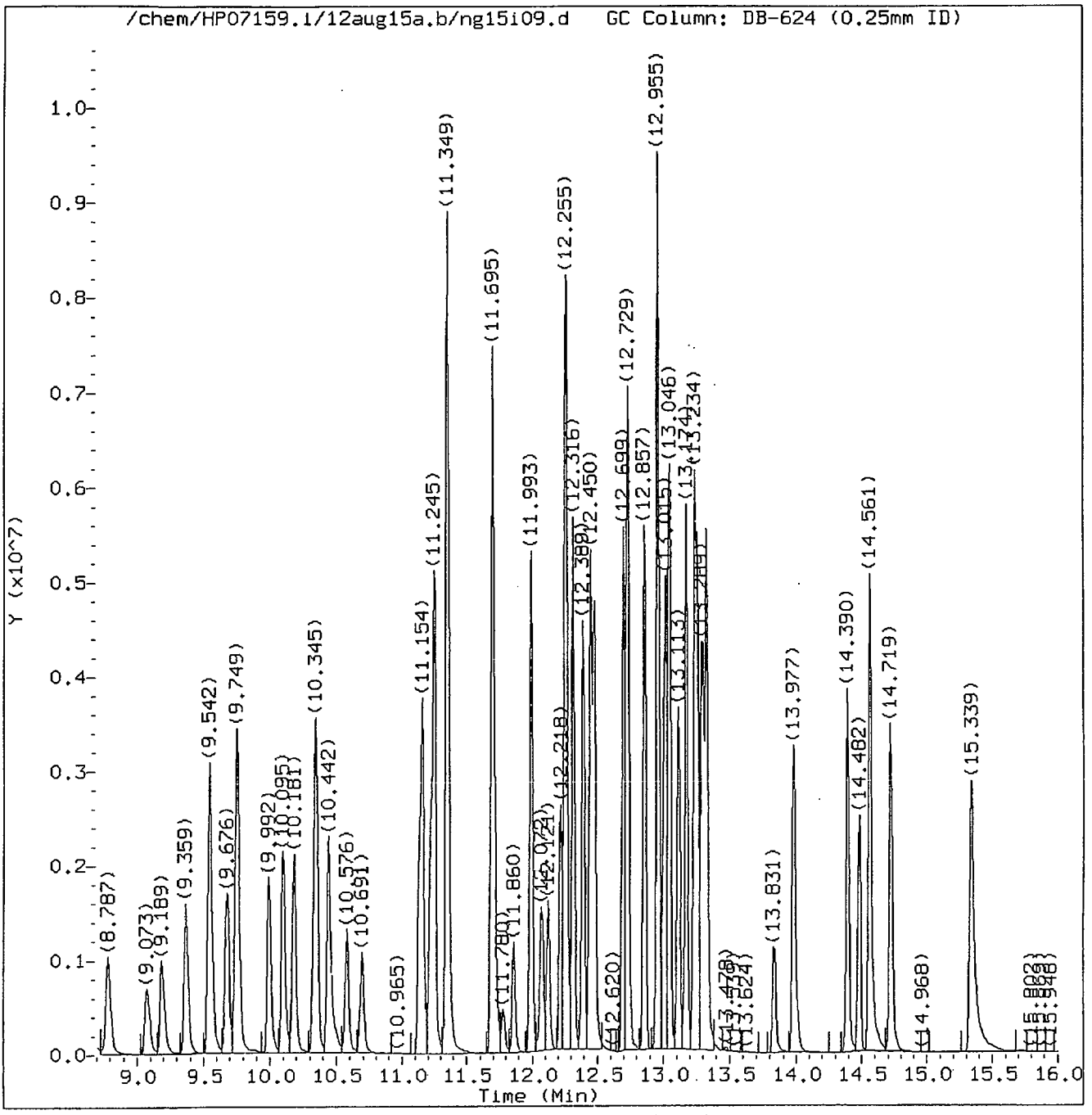
on 08/15/2012 at 19:07
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 16:01 sag03174

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 16:01 sag03174

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.919	85	1006146	101.912
3) Chloromethane	(1)	2.071	50	869582	103.017
4) Vinyl Chloride	(1)	2.205	62	854601	99.811
5) Bromomethane	(1)	2.534	94	485289	94.311
7) Chloroethane	(1)	2.625	64	417377	95.527
8) Trichlorofluoromethane	(1)	2.947	101	996284	102.064
12) Ethanol	(4)	3.087	45	394811	2407.642
13) Acrolein	(4)	3.367	56	2698385	1045.653
16) 1,1-Dichloroethene	(1)	3.525	96	618181	106.768
18) Freon 113	(1)	3.531	101	613604	105.150
19) Acetone	(1)	3.556	58	270236	224.759
20) Methyl Iodide	(1)	3.720	142	1113723	108.789
21) 2-Propanol	(4)	3.720	45	581565	543.445
22) Carbon Disulfide	(1)	3.829	76	2119238	109.251
23) Allyl Chloride	(1)	3.975	41	1194799	98.248
24) Methyl Acetate	(1)	3.988	43	898791	103.067
25) Methylene Chloride	(1)	4.152	84	767529	103.252
26)*t-Butyl Alcohol-d10	(4)	4.170	65	403539	250.000
27) t-Butyl Alcohol	(4)	4.292	59	870050M	480.264
28) Acrylonitrile	(1)	4.517	53	497315	113.199
30) Methyl Tertiary Butyl Ether	(1)	4.553	73	2500033	105.630
29) trans-1,2-Dichloroethene	(1)	4.565	96	731309	109.600
34) n-Hexane	(1)	4.985	57	965199	108.693
36) 1,1-Dichloroethane	(1)	5.192	63	1384500	108.611
37) di-Isopropyl Ether	(1)	5.314	45	2544069	106.102
33) 1,2-Dichloroethene (total)	(1)		96	1554627	217.683
38) 2-Chloro-1,3-Butadiene	(1)	5.338	53	1085019	107.776
39) Ethyl t-Butyl Ether	(1)	5.855	59	2419670	103.305
40) cis-1,2-Dichloroethene	(1)	6.050	96	823318	108.083
42) 2-Butanone	(1)	6.068	43	1321855	232.287
44) 2,2-Dichloropropane	(1)	6.068	77	1005191	109.158
45) Propionitrile	(4)	6.153	54	1029557	525.708
47) Methacrylonitrile	(1)	6.366	67	1272236	266.114
48) Bromochloromethane	(1)	6.384	128	403681	103.679
49) Tetrahydrofuran	(4)	6.451	71	384697	213.766
50) Chloroform	(1)	6.506	83	1253982	104.036
51)$Dibromofluoromethane	(1)	6.731	113	339359	49.982
52)$Dibromofluoromethane(mz111)	(1)	6.731	111	346386	50.117

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Gull
on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 16:01 sag03174

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(1)	6.768	97	1042810	105.494
54) Cyclohexane (mz 84)	(1)	6.853	84	1084058	106.348
55) Cyclohexane (mz 69)	(1)	6.853	69	398741	103.456
56) Cyclohexane	(1)	6.853	56	1301050	106.175
58) 1,1-Dichloropropene	(1)	6.993	75	1029693	100.956
59) Carbon Tetrachloride	(1)	6.999	117	832160	115.081
61) Isobutyl Alcohol	(4)	7.157	41	728562	1299.737
63)$1,2-Dichloroethane-d4(mz65)	(1)	7.187	65	386937M	48.576
64)$1,2-Dichloroethane-d4(mz104)	(1)	7.187	104	58071	50.372
62)$1,2-Dichloroethane-d4	(1)	7.194	102	87687	48.378
65) Benzene	(1)	7.273	78	3109146	106.341
67) 1,2-Dichloroethane (mz 98)	(1)	7.291	98	103855	108.003
66) 1,2-Dichloroethane	(1)	7.291	62	988310	106.129
68) t-Amyl Methyl Ether	(1)	7.437	73	2415898	106.685
69) n-Heptane	(1)	7.650	43	879907	105.216
70)*Fluorobenzene	(1)	7.656	96	1515397	50.000
71) n-Butanol	(4)	8.057	56	1335068	3022.798
74) Trichloroethene	(1)	8.136	95	775033	107.238
75) Methylcyclohexane	(1)	8.398	83	1180428	99.107
76) 1,2-Dichloropropane	(1)	8.422	63	875000	107.583
78) Dibromomethane	(1)	8.581	93	536273	108.943
77) Methyl Methacrylate	(1)	8.599	69	859242	106.846
80) 1,4-Dioxane	(4)	8.611	88	202087	1445.117
81) Bromodichloromethane	(1)	8.787	83	941636	114.759
82) 2-Nitropropane	(4)	9.073	41	583461	226.829
83) 2-Chloroethyl Vinyl Ether	(1)	9.189	63	648164	116.028
84) cis-1,3-Dichloropropene	(1)	9.359	75	1309682	110.504
85) 4-Methyl-2-Pentanone	(1)	9.542	43	2770614	221.733
86)$Toluene-d8	(2)	9.676	98	1487254	50.524
87)$Toluene-d8(mz100)	(2)	9.676	100	1000313	50.881
88) Toluene	(2)	9.755	92	2007308	107.350
89) trans-1,3-Dichloropropene	(2)	9.992	75	1244706	111.903
90) Ethyl Methacrylate	(2)	10.095	69	1435963	107.007
91) 1,1,2-Trichloroethane	(2)	10.181	97	773889	104.658
93) Tetrachloroethene	(2)	10.339	166	785348	110.760
94) 1,3-Dichloropropane	(2)	10.351	76	1391222	108.113
95) 2-Hexanone	(2)	10.442	43	2150372	258.613
96) Dibromochloromethane	(2)	10.576	129	772901	122.673

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 16:01 sag03174

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,2-Dibromoethane	(2)	10.691	107	856214	111.372
98) *Chlorobenzene-d5	(2)	11.130	117	1045923	50.000
100) Chlorobenzene	(2)	11.154	112	2233534	108.569
101) 1,1,1,2-Tetrachloroethane	(2)	11.221	131	726353	113.755
102) Ethylbenzene	(2)	11.245	91	3679221	102.401
103) m+p-Xylene	(2)	11.349	106	2939365	215.101
104) Xylene (Total)	(2)		106	4365410	321.429
106) o-Xylene	(2)	11.689	106	1426045	106.328
109) Styrene	(2)	11.701	104	2453359	109.368
110) Bromoform	(2)	11.860	173	571042	121.079
111) Isopropylbenzene	(2)	11.993	105	3542136	107.503
112) Cyclohexanone	(4)	12.072	55	801145	1380.584
115) $4-Bromofluorobenzene(mz174)	(2)	12.121	174	423123	50.707
114) $4-Bromofluorobenzene	(2)	12.121	95	537859	50.687
116) 1,1,2,2-Tetrachloroethane	(3)	12.218	83	1314983	105.274
117) Bromobenzene	(3)	12.249	156	923871	106.481
119) 1,2,3-Trichloropropane	(3)	12.255	110	361163	104.957
118) trans-1,4-Dichloro-2-Butene	(3)	12.261	53	864100	286.000
120) n-Propylbenzene	(3)	12.316	91	4132273	115.234
121) 2-Chlorotoluene	(3)	12.389	126	864481	105.616
122) 1,3,5-Trimethylbenzene	(3)	12.450	105	3029888	107.625
123) 4-Chlorotoluene	(3)	12.474	126	933855	105.108
124) tert-Butylbenzene	(3)	12.699	134	667436	108.647
125) Pentachloroethane	(3)	12.717	167	545357	110.398
126) 1,2,4-Trimethylbenzene	(3)	12.736	105	3139033	109.811
127) sec-Butylbenzene	(3)	12.857	105	3623047	109.083
129) 1,3-Dichlorobenzene	(3)	12.955	146	1680978	114.738
128) p-Isopropyltoluene	(3)	12.961	119	3163844	111.775
130) *1,4-Dichlorobenzene-d4	(3)	13.003	152	584303	50.000
131) 1,4-Dichlorobenzene	(3)	13.015	146	1837929	98.371
132) 1,2,3-Trimethylbenzene	(3)	13.046	105	3196944	103.614
133) Benzyl Chloride	(3)	13.113	91	2544544M	127.810
134) 1,3-Diethylbenzene	(3)	13.167	105	1886384	108.542
135) 1,4-Diethylbenzene	(3)	13.234	105	1797738	106.927
136) n-Butylbenzene	(3)	13.253	92	1543071M	103.495
137) 1,2-Dichlorobenzene	(3)	13.295	146	1745227	103.158
138) 1,2-Diethylbenzene	(3)	13.320	105	1902470	91.850
139) 1,2-Dibromo-3-Chloropropane	(3)	13.831	75	316047	110.178

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 16:01 sag03174

Sample Name: VSTD100 Lab Sample ID: VSTD100

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
140)	1,2,4-Trichlorobenzene	(3)	14.390	180	1238198	106.930
141)	Hexachlorobutadiene	(3)	14.482	225	446902	111.980
142)	Naphthalene	(3)	14.561	128	4570908	103.533
144)	1,2,3-Trichlorobenzene	(3)	14.719	180	1228655	105.308
145)	2-Methylnaphthalene	(3)	15.339	142	2596249	99.610

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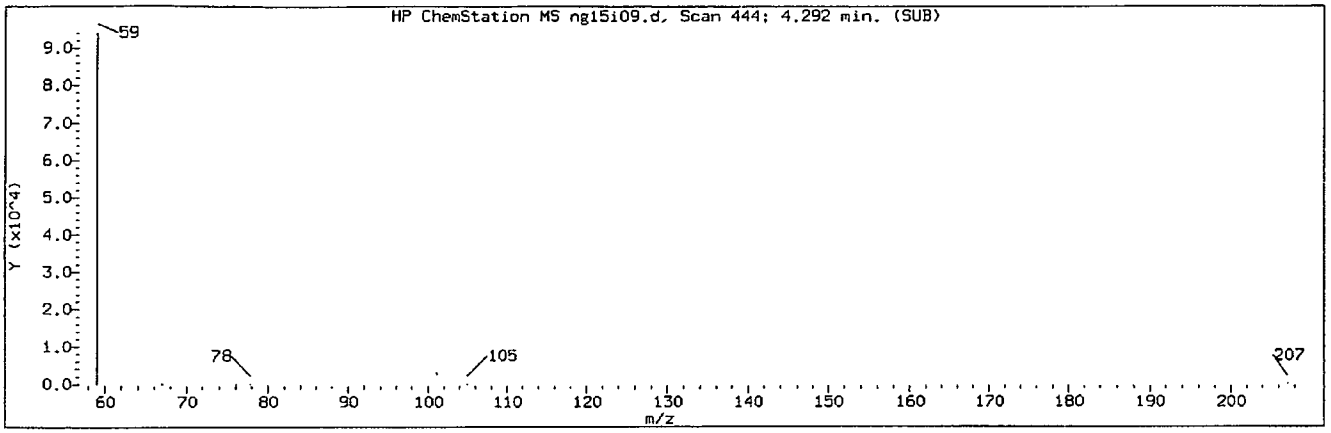
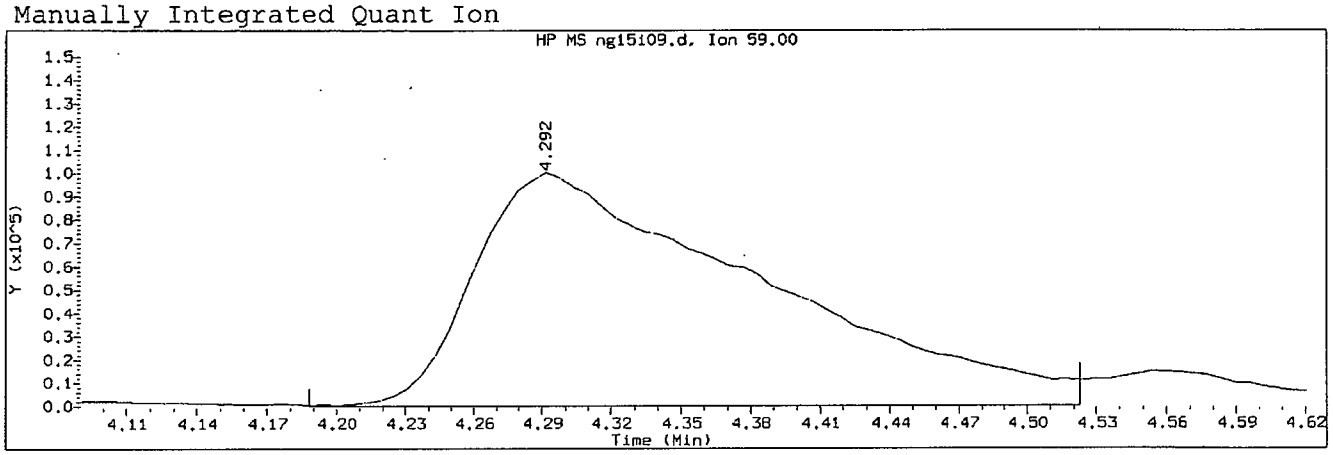
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 16:01 sag03174

Sample Name: VSTD100 Lab Sample ID: VSTD100

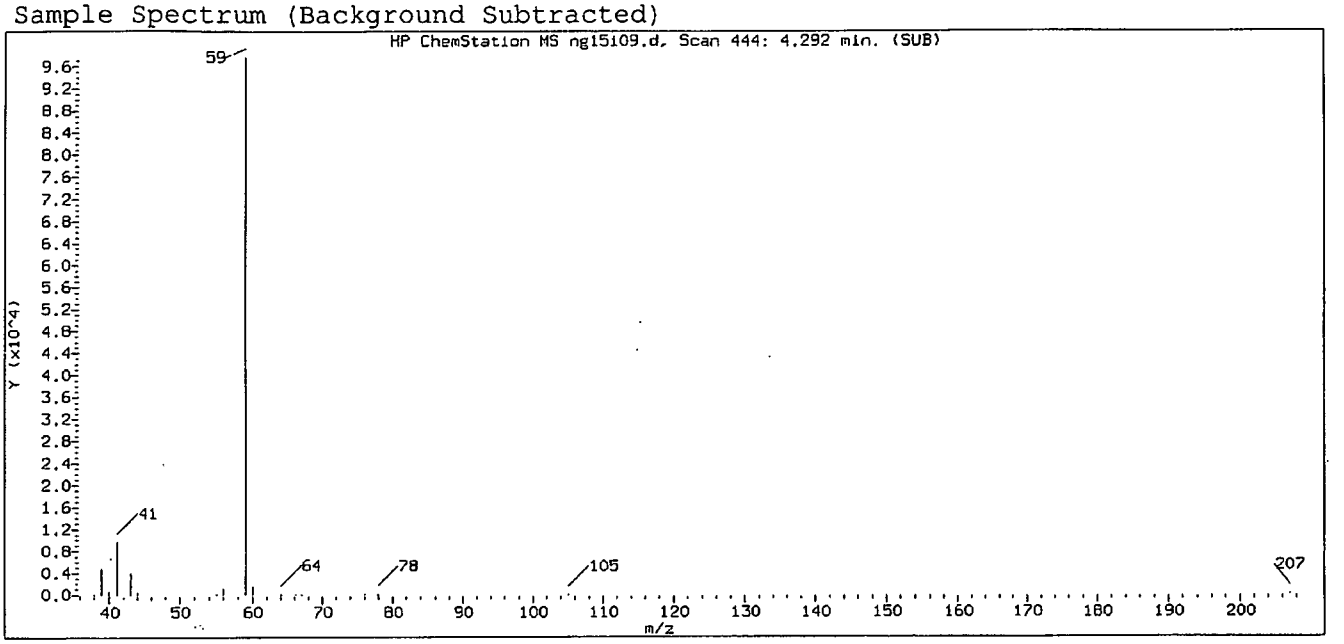
Compound Number	: 27		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 444		
Retention Time (minutes)	: 4.292		
Quant Ion	: 59.00		
Area (flag)	: 870050M		
On-Column Amount (ng)	: 480.2643		
Integration start scan	: 426	Integration stop scan:	481
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

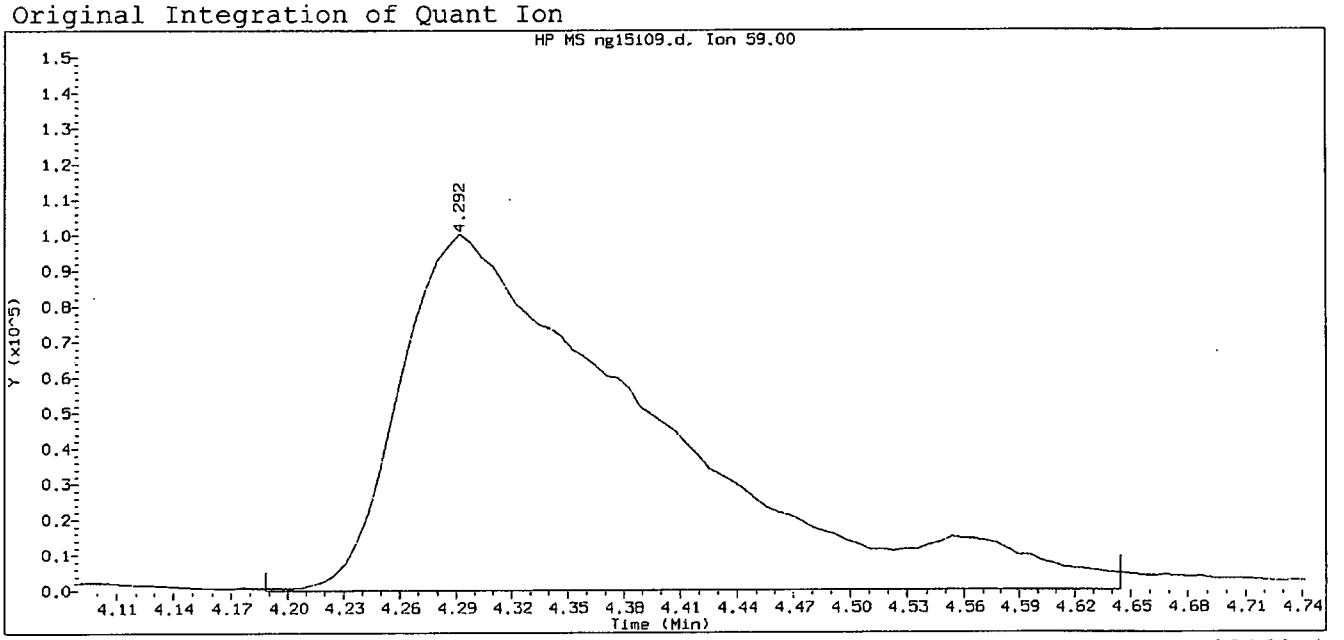
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 15:45 Automation

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number	: 27		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 444		
Retention Time (minutes)	: 4.292		
Quant Ion	: 59.00		
Area	: 942725		
On-column Amount (ng)	: 514.6971		
Integration start scan	: 426	Integration stop scan:	501
Y at integration start	: 0	Y at integration end:	0

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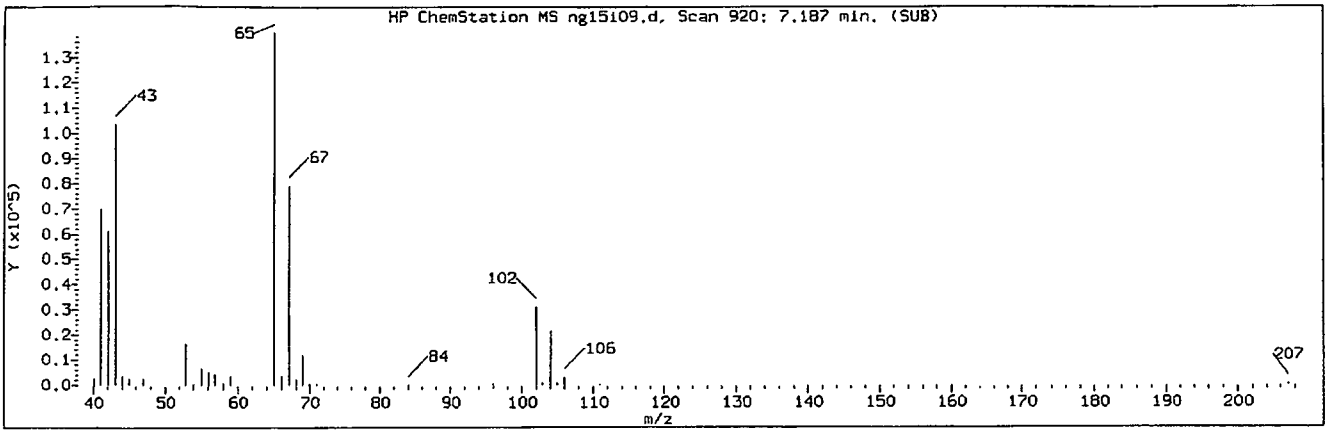
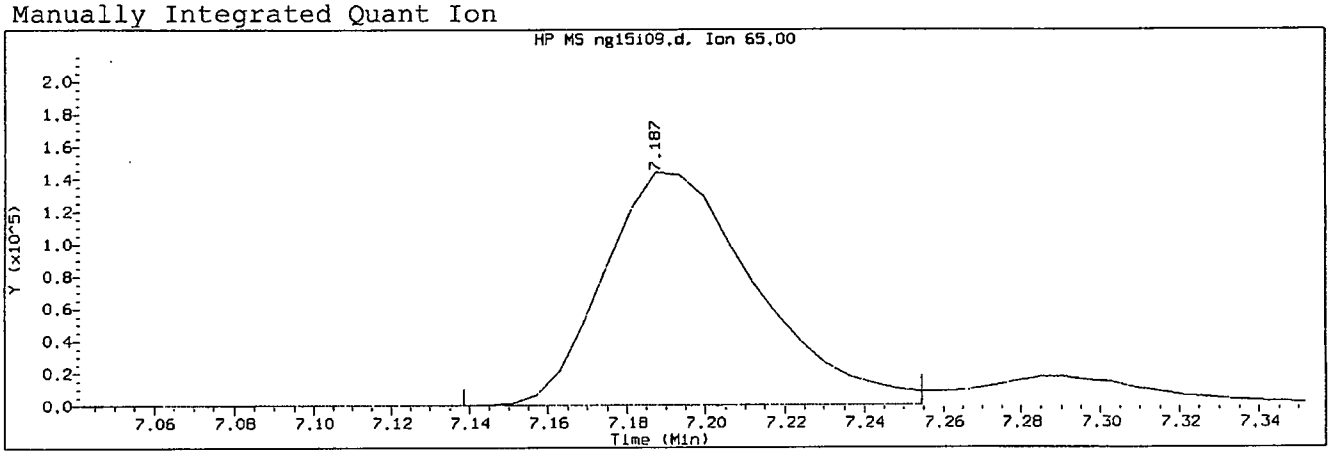
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 16:01 sag03174

Sample Name: VSTD100 Lab Sample ID: VSTD100

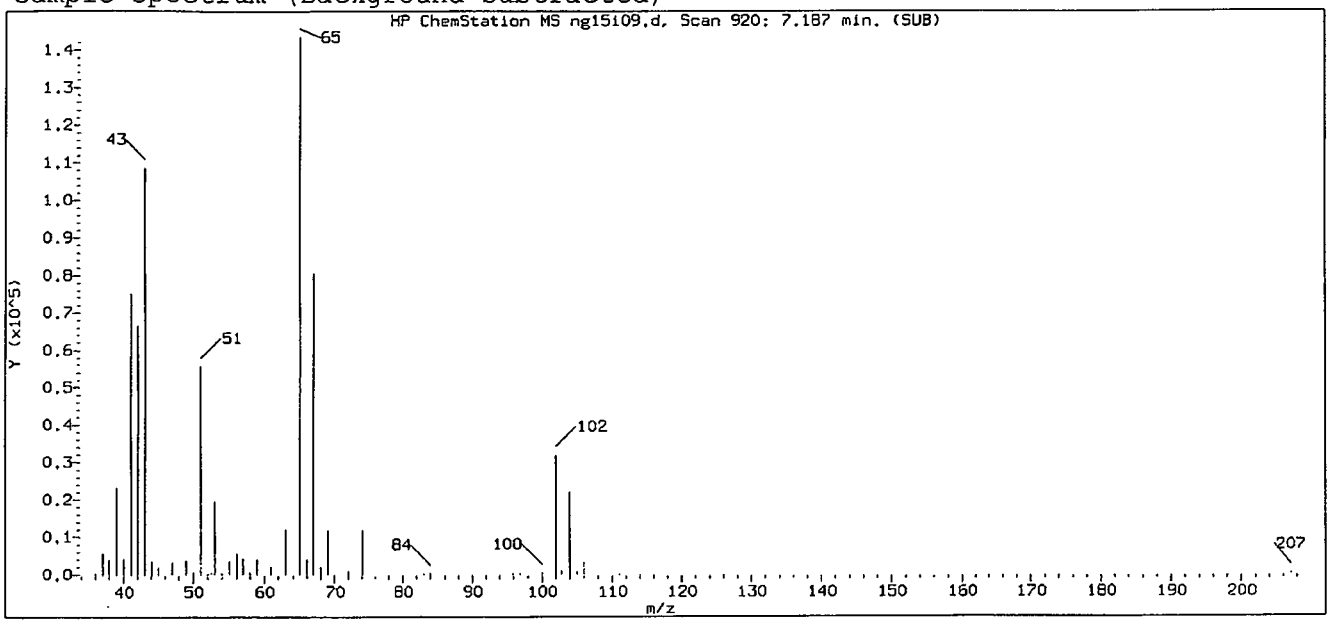
Compound Number	: 63		
Compound Name	: 1,2-Dichloroethane-d4(mz65)		
Scan Number	: 920		
Retention Time (minutes)	: 7.187		
Quant Ion	: 65.00		
Area (flag)	: 386937M		
On-Column Amount (ng)	: 48.5758		
Integration start scan	: 911	Integration stop scan:	930
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

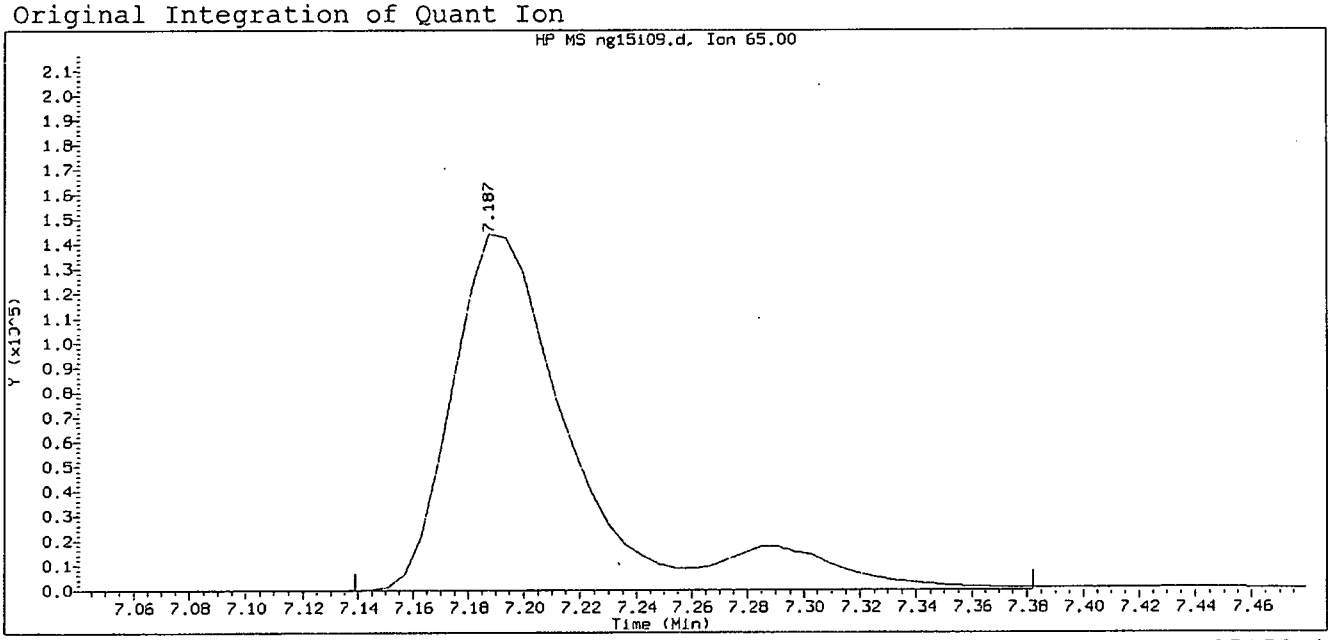
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 15:45 Automation

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number	: 63		
Compound Name	: 1,2-Dichloroethane-d4(mz65)		
Scan Number	: 920		
Retention Time (minutes)	: 7.187		
Quant Ion	: 65.00		
Area	: 443271		
On-column Amount (ng)	: 54.6143		
Integration start scan	: 911	Integration stop scan:	951
Y at integration start	: 0	Y at integration end:	0

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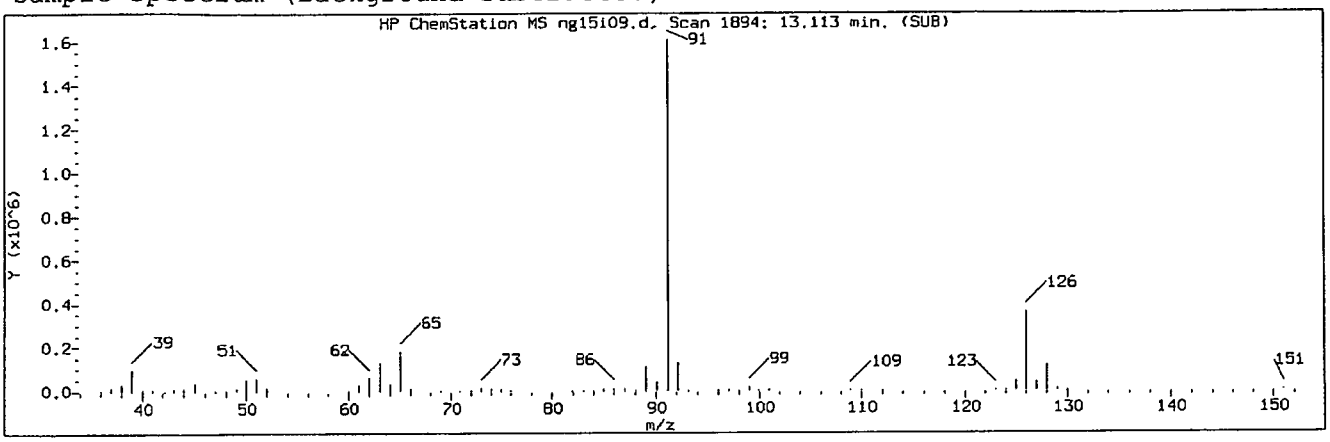
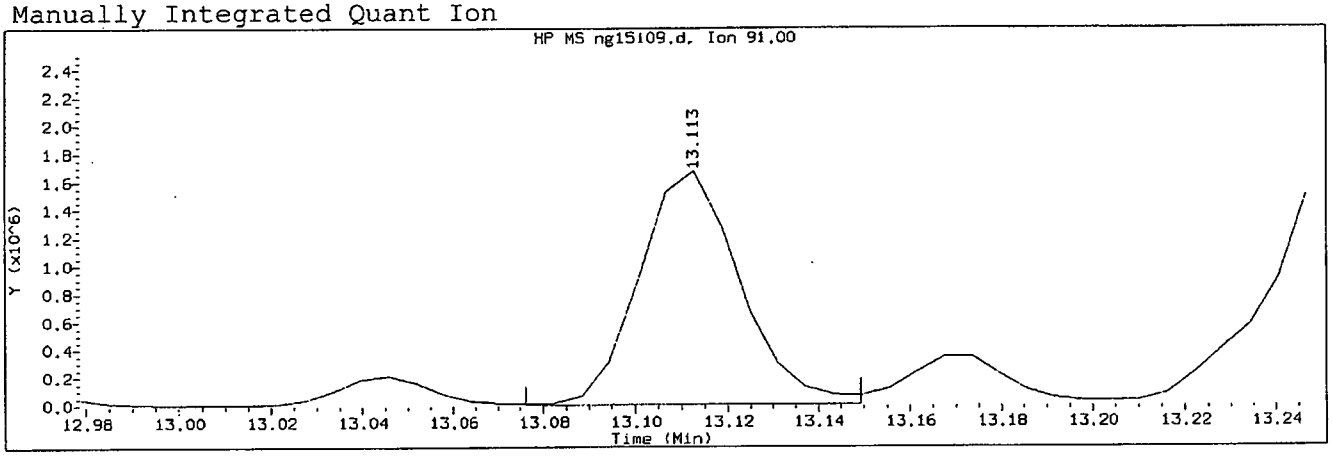
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 16:01 sag03174

Sample Name: VSTD100 Lab Sample ID: VSTD100

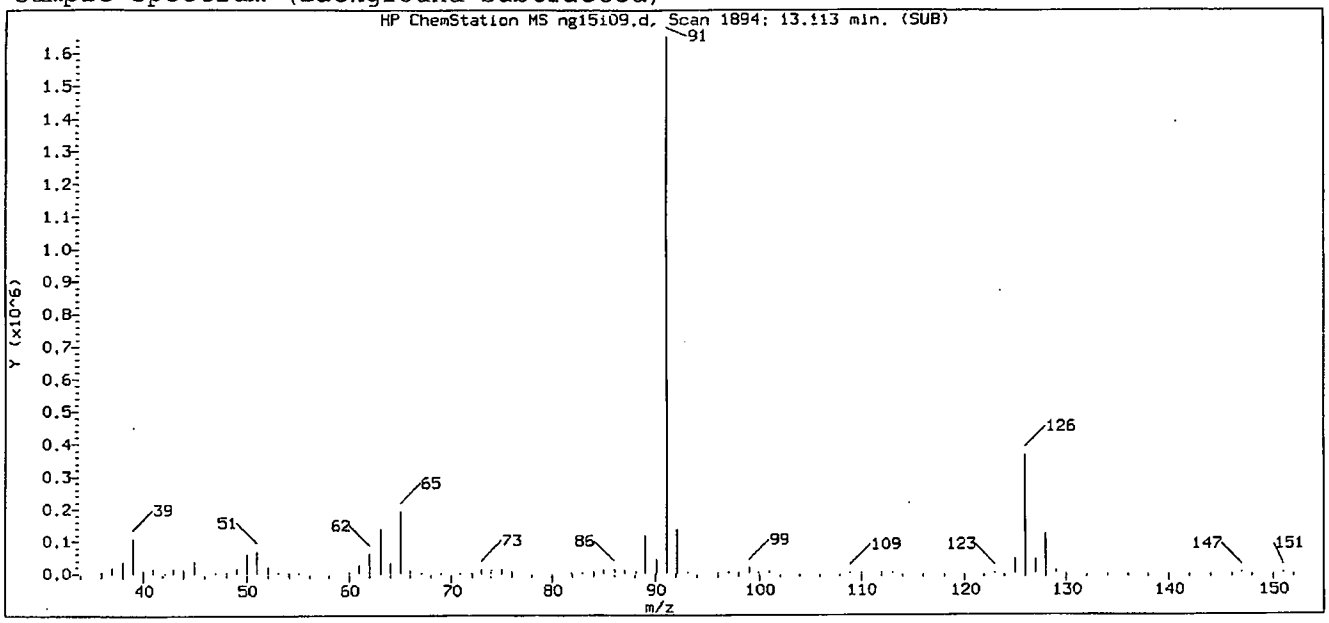
Compound Number	: 133		
Compound Name	: Benzyl Chloride		
Scan Number	: 1894		
Retention Time (minutes)	: 13.113		
Quant Ion	: 91.00		
Area (flag)	: 2544544M		
On-Column Amount (ng)	: 127.8096		
Integration start scan	: 1887	Integration stop scan:	1899
Y at integration start	: 1734	Y at integration end:	1734

Reason for manual integration: improper integration

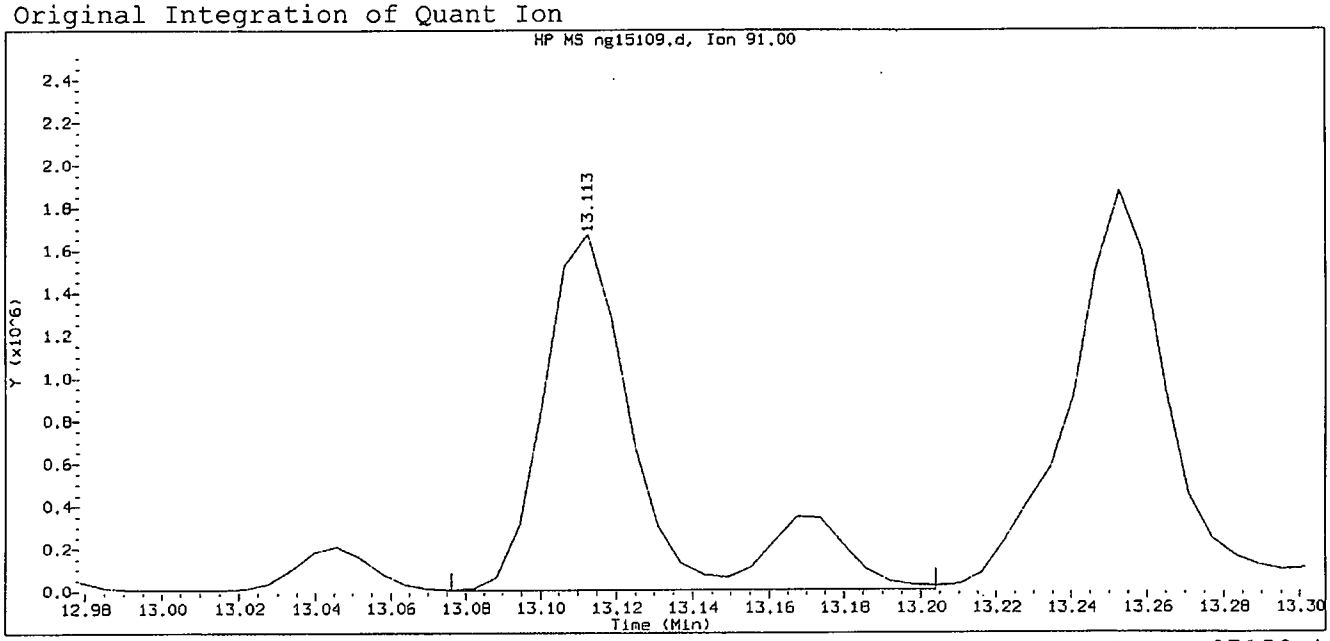
Analyst responsible for change: Digitally Signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 685 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 15:45 Automation

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number	: 133		
Compound Name	: Benzyl Chloride		
Scan Number	: 1894		
Retention Time (minutes)	: 13.113		
Quant Ion	: 91.00		
Area	: 3063097		
On-column Amount (ng)	: 147.4494		
Integration start scan	: 1887	Integration stop scan:	1908
Y at integration start	: 1734	Y at integration end:	1734

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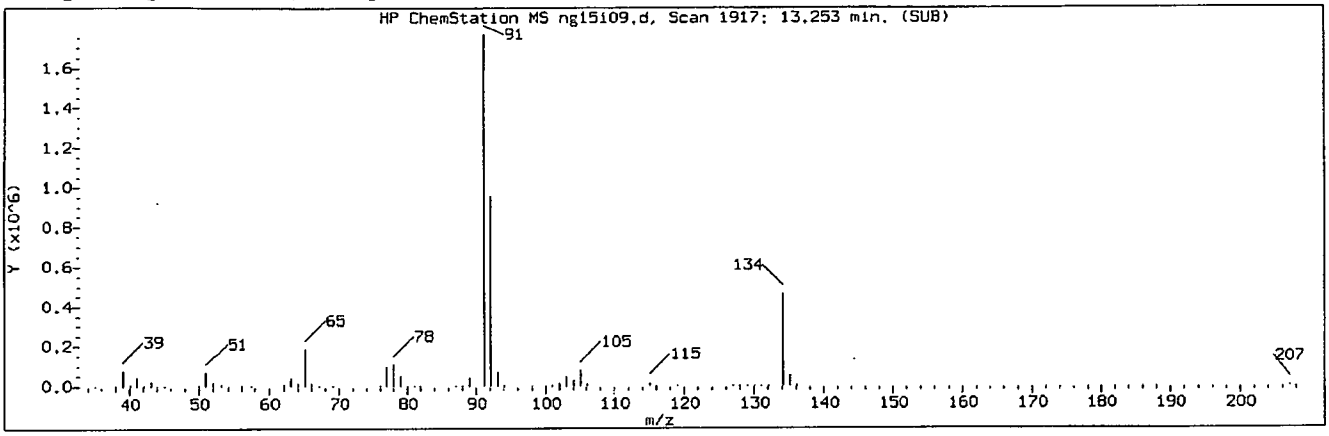
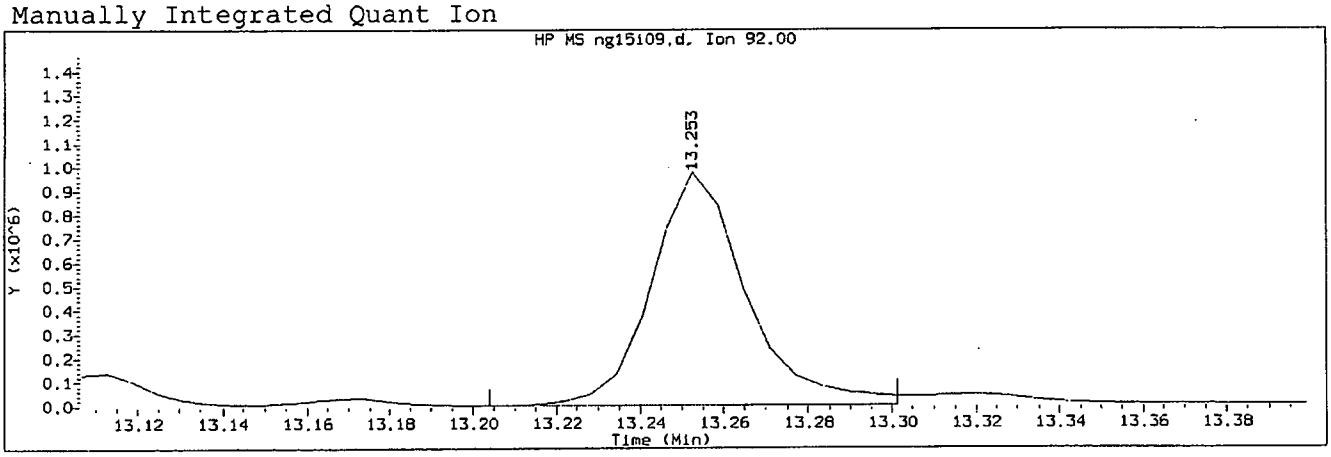
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 16:01 sag03174

Sample Name: VSTD100 Lab Sample ID: VSTD100

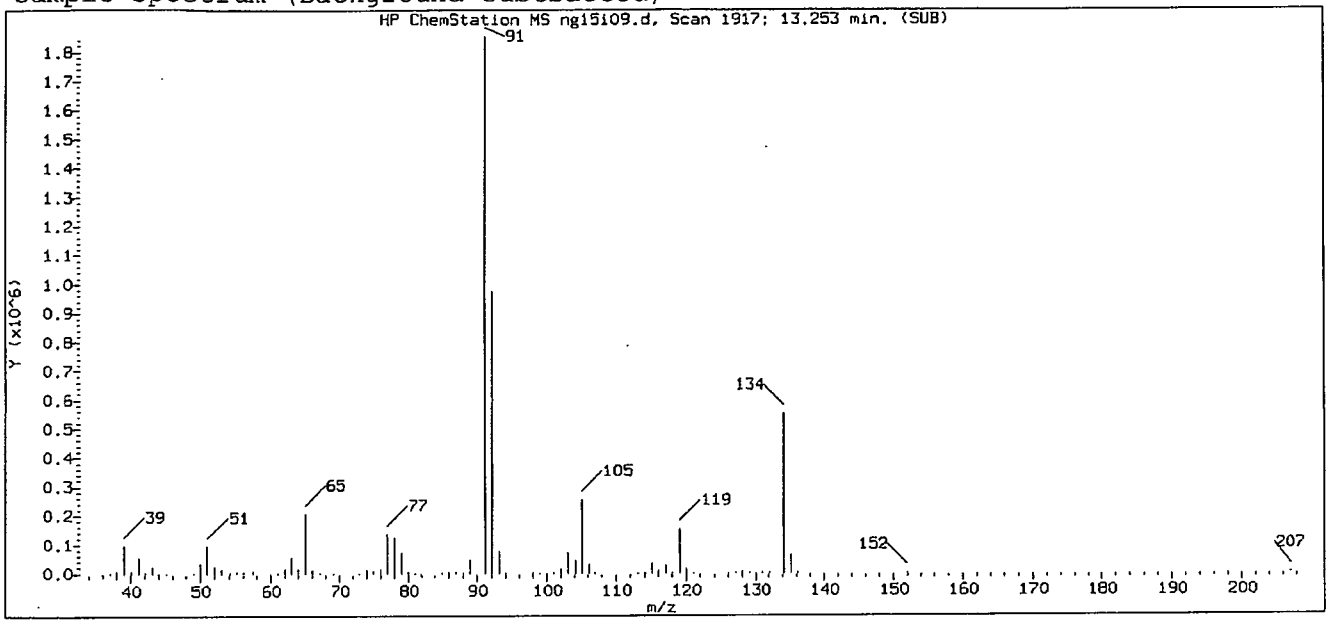
Compound Number : 136
Compound Name : n-Butylbenzene
Scan Number : 1917
Retention Time (minutes): 13.253
Quant Ion : 92.00
Area (flag) : 1543071M
On-Column Amount (ng) : 103.4951
Integration start scan : 1908 Integration stop scan: 1924
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

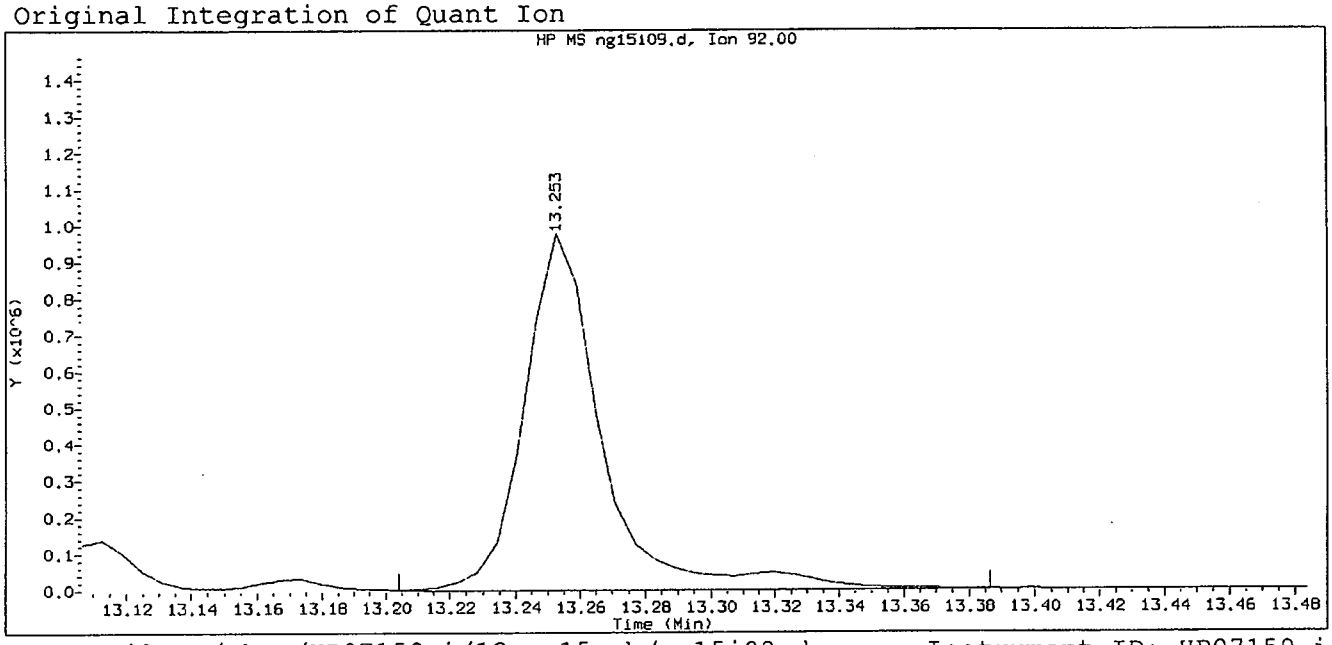
Analyst responsible for change: Digitally signed by Sarah A. Gull
on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 685 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



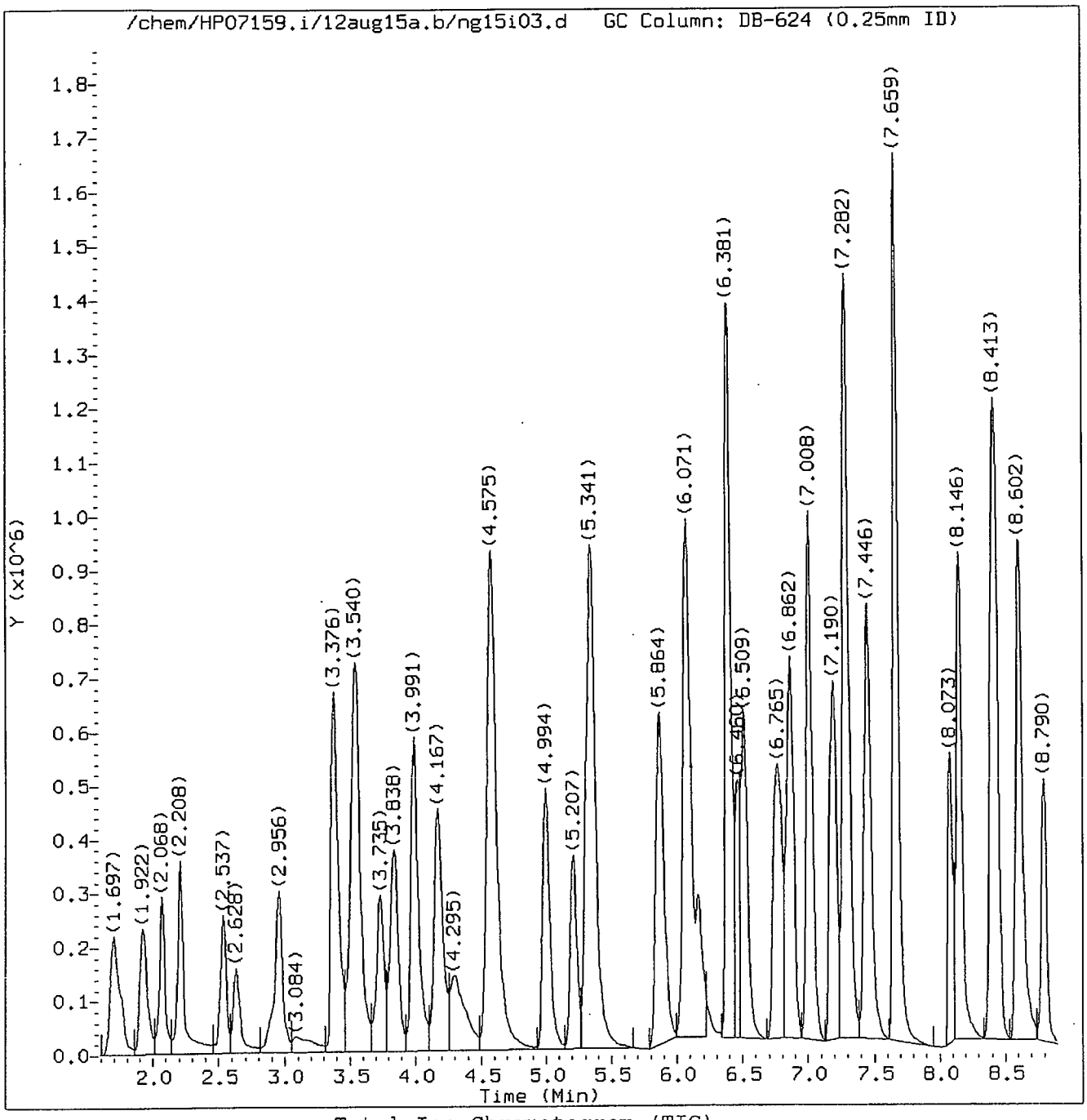
Data File: /chem/HP07159.i/12aug15a.b/ng15i09.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 15:24 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 15:45
Date, time and analyst ID of latest file update: 15-Aug-2012 15:45 Automation

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number	: 136		
Compound Name	: n-Butylbenzene		
Scan Number	: 1917		
Retention Time (minutes)	: 13.253		
Quant Ion	: 92.00		
Area	: 1638788		
On-column Amount (ng)	: 108.4944		
Integration start scan	: 1908	Integration stop scan:	1938
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d
Injection date and time: 15-AUG-2012 12:42

Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 13:05

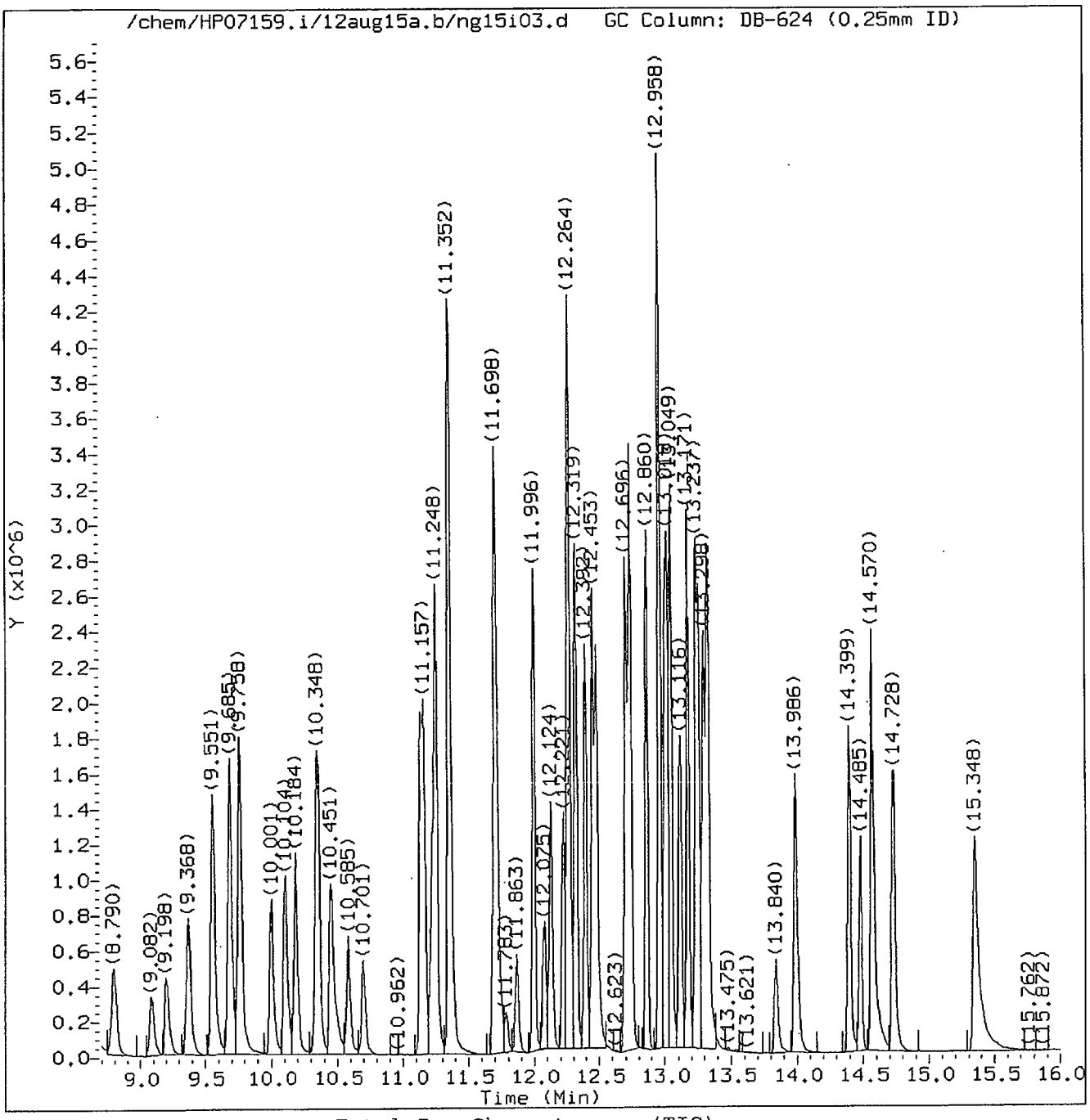
Sublist used: 8260WI

Date, time and analyst ID of latest file update: 15-Aug-2012 13:05 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:06:
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 12:42 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:05
Date, time and analyst ID of latest file update: 15-Aug-2012 13:05 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:06
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d
Injection date and time: 15-AUG-2012 12:42
Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 13:05
Sublist used: 8260WI
Date, time and analyst ID of latest file update: 15-Aug-2012 13:05 ads01731

Sample Name: VSTD050
Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.922	85	555149	55.621
3) Chloromethane	(1)	2.068	50	446836	54.695
4) Vinyl Chloride	(1)	2.208	62	472957	56.572
5) Bromomethane	(1)	2.537	94	276541	60.376
7) Chloroethane	(1)	2.628	64	236778	59.691
8) Trichlorofluoromethane	(1)	2.950	101	545872	55.623
12) Ethanol	(4)	3.102	45	217191	1296.508
13) Acrolein	(4)	3.376	56	1380777	532.101
16) 1,1-Dichloroethene	(1)	3.534	96	322138	54.464
18) Freon 113	(1)	3.540	101	329186	55.354
19) Acetone	(1)	3.571	58	138895	106.481
20) Methyl Iodide	(1)	3.735	142	579161	54.063
21) 2-Propanol	(4)	3.741	45	309778	269.688
22) Carbon Disulfide	(1)	3.838	76	1090030	53.826
23) Allyl Chloride	(1)	3.984	41	636446	87.294
24) Methyl Acetate	(1)	4.009	43	474579	72.228
25) Methylene Chloride	(1)	4.167	84	395786	53.175
26)*t-Butyl Alcohol-d10	(4)	4.179	65	402809	250.000
27) t-Butyl Alcohol	(4)	4.313	59	515345M	282.484
28) Acrylonitrile	(1)	4.538	53	250864	51.834
29) trans-1,2-Dichloroethene	(1)	4.575	96	375606	53.757
30) Methyl Tertiary Butyl Ether	(1)	4.575	73	1306589	53.264
34) n-Hexane	(1)	4.994	57	504680	54.244
36) 1,1-Dichloroethane	(1)	5.207	63	710523	53.465
37) di-Isopropyl Ether	(1)	5.323	45	1308443	53.494
33) 1,2-Dichloroethene (total)	(1)		96	796017	106.762
38) 2-Chloro-1,3-Butadiene	(1)	5.353	53	568467	54.746
39) Ethyl t-Butyl Ether	(1)	5.864	59	1286247	53.816
40) cis-1,2-Dichloroethene	(1)	6.065	96	420411	53.005
44) 2,2-Dichloropropane	(1)	6.071	77	520082	53.699
42) 2-Butanone	(1)	6.089	43	660920	102.595
45) Propionitrile	(4)	6.168	54	550845	268.258
47) Methacrylonitrile	(1)	6.381	67	671481	133.531
48) Bromochloromethane	(1)	6.394	128	209668	65.420
49) Tetrahydrofuran	(4)	6.460	71	193779	102.980
50) Chloroform	(1)	6.515	83	647144	53.109
52)$Dibromofluoromethane(mz111)	(1)	6.740	111	341961	49.868
51)$Dibromofluoromethane	(1)	6.740	113	335253	49.878

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 12:42 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:05
Date, time and analyst ID of latest file update: 15-Aug-2012 13:05 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(1)	6.777	97	533544	53.082
56) Cyclohexane	(1)	6.862	56	680743	53.985
55) Cyclohexane (mz 69)	(1)	6.862	69	212605	54.416
54) Cyclohexane (mz 84)	(1)	6.862	84	569848	53.959
58) 1,1-Dichloropropene	(1)	7.002	75	536479	53.969
59) Carbon Tetrachloride	(1)	7.008	117	424214	52.484
61) Isobutyl Alcohol	(4)	7.172	41	410211	685.377
63)$1,2-Dichloroethane-d4(mz65)	(1)	7.197	65	381662M	49.880
64)$1,2-Dichloroethane-d4(mz104)	(1)	7.203	104	56727	50.009
62)$1,2-Dichloroethane-d4	(1)	7.203	102	88278	50.107
65) Benzene	(1)	7.282	78	1616271	53.655
66) 1,2-Dichloroethane	(1)	7.300	62	516732	52.963
67) 1,2-Dichloroethane (mz 98)	(1)	7.300	98	53394	52.558
68) t-Amyl Methyl Ether	(1)	7.440	73	1251824	52.665
70)*Fluorobenzene	(1)	7.659	96	1495760	50.000
69) n-Heptane	(1)	7.659	43	446226	52.897
71) n-Butanol	(4)	8.073	56	728327	1327.811
74) Trichloroethene	(1)	8.152	95	399756	53.461
75) Methylcyclohexane	(1)	8.401	83	641385	73.416
76) 1,2-Dichloropropane	(1)	8.431	63	450714	52.552
78) Dibromomethane	(1)	8.590	93	273581	52.006
77) Methyl Methacrylate	(1)	8.608	69	451452	52.413
80) 1,4-Dioxane	(4)	8.620	88	102894	633.161
81) Bromodichloromethane	(1)	8.790	83	480763	51.460
82) 2-Nitropropane	(4)	9.082	41	283526	96.963
83) 2-Chloroethyl Vinyl Ether	(1)	9.198	63	301371	48.489
84) cis-1,3-Dichloropropene	(1)	9.368	75	669239	51.972
85) 4-Methyl-2-Pentanone	(1)	9.551	43	1389611	104.294
86)$Toluene-d8	(2)	9.685	98	1466345	50.423
87)$Toluene-d8(mz100)	(2)	9.685	100	985278	50.448
88) Toluene	(2)	9.758	92	1036027	54.709
89) trans-1,3-Dichloropropene	(2)	10.001	75	645700	52.963
90) Ethyl Methacrylate	(2)	10.104	69	774584	54.464
91) 1,1,2-Trichloroethane	(2)	10.184	97	417627	54.658
93) Tetrachloroethene	(2)	10.342	166	403804	54.263
94) 1,3-Dichloropropane	(2)	10.354	76	729560	54.178
95) 2-Hexanone	(2)	10.451	43	1080003	105.812
96) Dibromochloromethane	(2)	10.585	129	395493	51.723

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Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 12:42 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:05
Date, time and analyst ID of latest file update: 15-Aug-2012 13:05 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,2-Dibromoethane	(2)	10.695	107	446365	53.459
98) *Chlorobenzene-d5	(2)	11.133	117	1031045	50.000
100) Chlorobenzene	(2)	11.157	112	1163516	54.340
101) 1,1,1,2-Tetrachloroethane	(2)	11.224	131	375382	53.017
102) Ethylbenzene	(2)	11.254	91	1914376	54.912
103) m+p-Xylene	(2)	11.352	106	1541771	112.081
104) Xylene (Total)	(2)		106	2296549	167.442
106) o-Xylene	(2)	11.692	106	754778	55.362
109) Styrene	(2)	11.710	104	1297100	54.828
110) Bromoform	(2)	11.863	173	287663	50.825
111) Isopropylbenzene	(2)	11.996	105	1858832	55.888
112) Cyclohexanone	(4)	12.075	55	393528	632.243
115) $4-Bromofluorobenzene(mz174)	(2)	12.124	174	411659	49.744
114) $4-Bromofluorobenzene	(2)	12.124	95	519370	49.629
116) 1,1,2,2-Tetrachloroethane	(3)	12.221	83	706438	54.871
117) Bromobenzene	(3)	12.252	156	480453	54.017
118) trans-1,4-Dichloro-2-Butene	(3)	12.264	53	454552	137.634
119) 1,2,3-Trichloropropane	(3)	12.264	110	197855	55.828
120) n-Propylbenzene	(3)	12.319	91	2167503	55.850
121) 2-Chlorotoluene	(3)	12.392	126	447889	53.588
122) 1,3,5-Trimethylbenzene	(3)	12.453	105	1558572	54.428
123) 4-Chlorotoluene	(3)	12.483	126	486624	54.068
124) tert-Butylbenzene	(3)	12.696	134	341951	54.389
125) Pentachloroethane	(3)	12.720	167	276284	53.474
126) 1,2,4-Trimethylbenzene	(3)	12.739	105	1628893	54.741
127) sec-Butylbenzene	(3)	12.860	105	1857271	55.191
128) p-Isopropyltoluene	(3)	12.958	119	1632422	56.091
129) 1,3-Dichlorobenzene	(3)	12.958	146	871864	55.040
130) *1,4-Dichlorobenzene-d4	(3)	13.006	152	575556	50.000
131) 1,4-Dichlorobenzene	(3)	13.018	146	983800	54.973
132) 1,2,3-Trimethylbenzene	(3)	13.049	105	1669643	57.646
133) Benzyl Chloride	(3)	13.116	91	1281356M	51.198
134) 1,3-Diethylbenzene	(3)	13.171	105	981467	57.182
135) 1,4-Diethylbenzene	(3)	13.231	105	938104	57.272
136) n-Butylbenzene	(3)	13.256	92	852260	56.948
137) 1,2-Dichlorobenzene	(3)	13.298	146	918106	54.044
138) 1,2-Diethylbenzene	(3)	13.329	105	1022045	58.214
139) 1,2-Dibromo-3-Chloropropane	(3)	13.840	75	164634	53.007

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Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 12:42 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:05
Date, time and analyst ID of latest file update: 15-Aug-2012 13:05 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
140)	1,2,4-Trichlorobenzene	(3)	14.399	180	639111	54.847
141)	Hexachlorobutadiene	(3)	14.485	225	218683	52.329
142)	Naphthalene	(3)	14.570	128	2397300	56.074
144)	1,2,3-Trichlorobenzene	(3)	14.728	180	637330	55.144
145)	2-Methylnaphthalene	(3)	15.348	142	1332375	55.487

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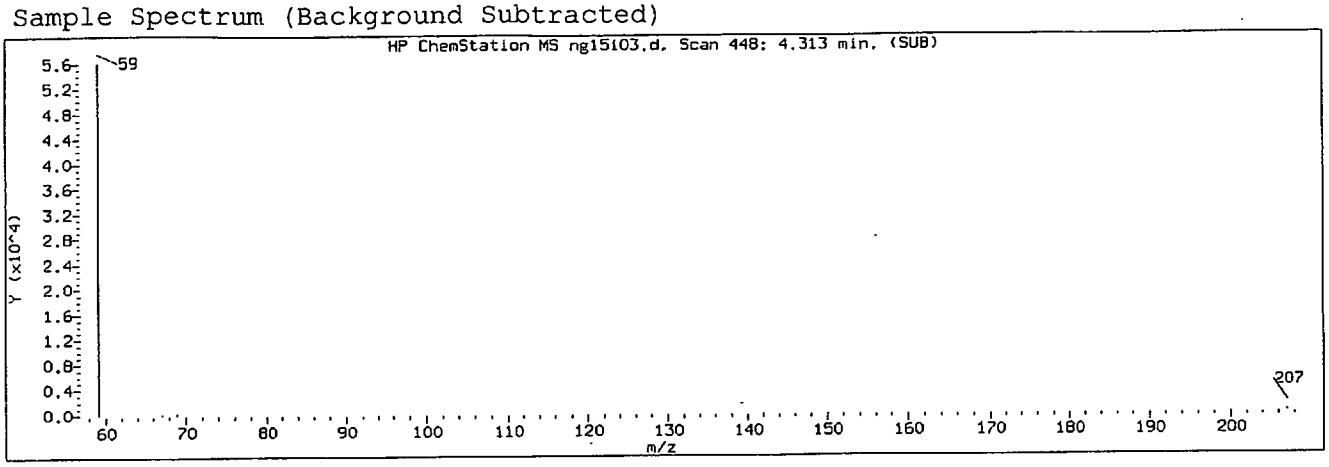
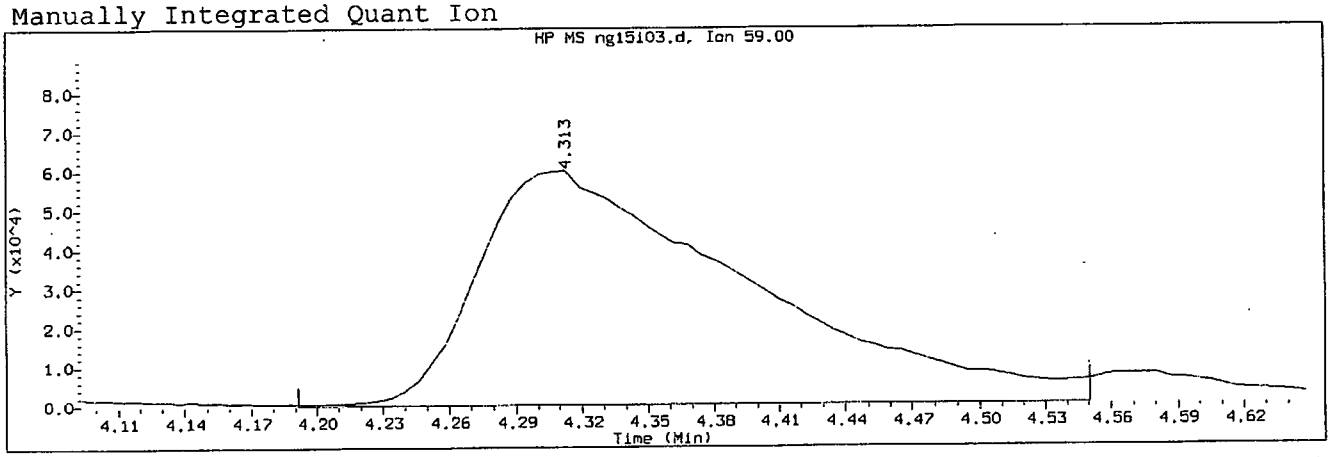
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 12:42 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:05
Date, time and analyst ID of latest file update: 15-Aug-2012 13:05 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

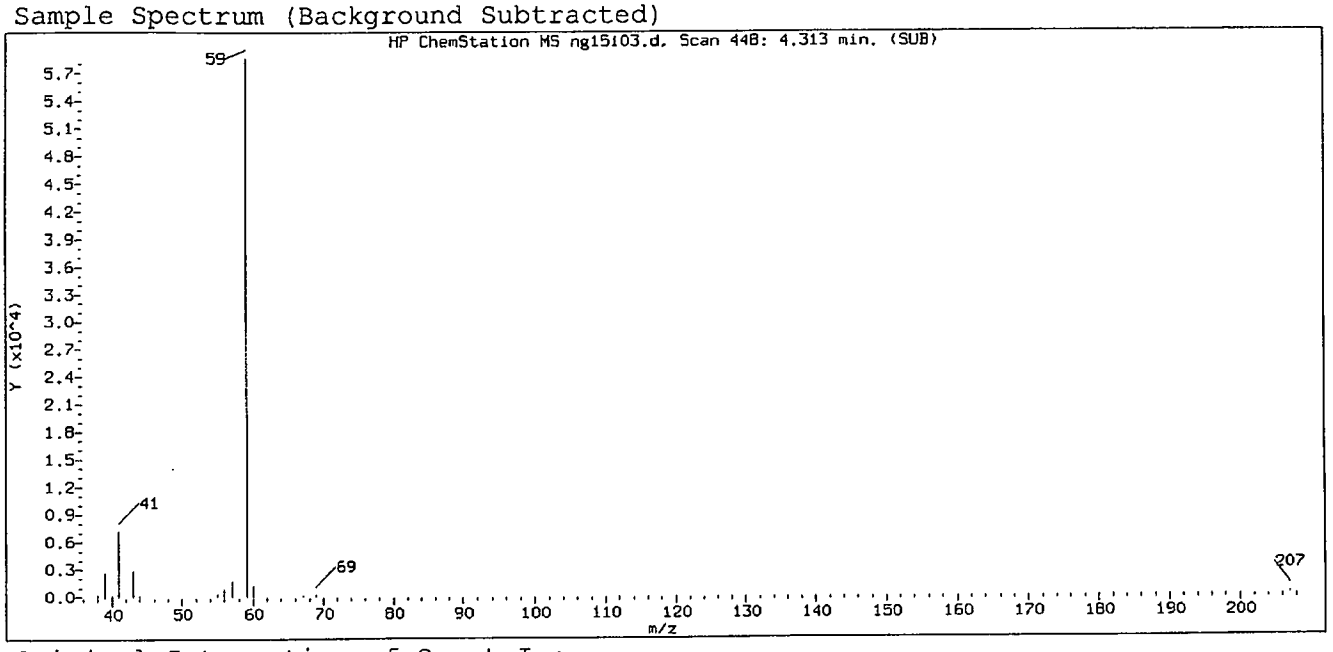
Compound Number	: 27		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 448		
Retention Time (minutes)	: 4.313		
Quant Ion	: 59.00		
Area (flag)	: 515345M		
On-Column Amount (ng)	: 282.4836		
Integration start scan	: 427	Integration stop scan:	486
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

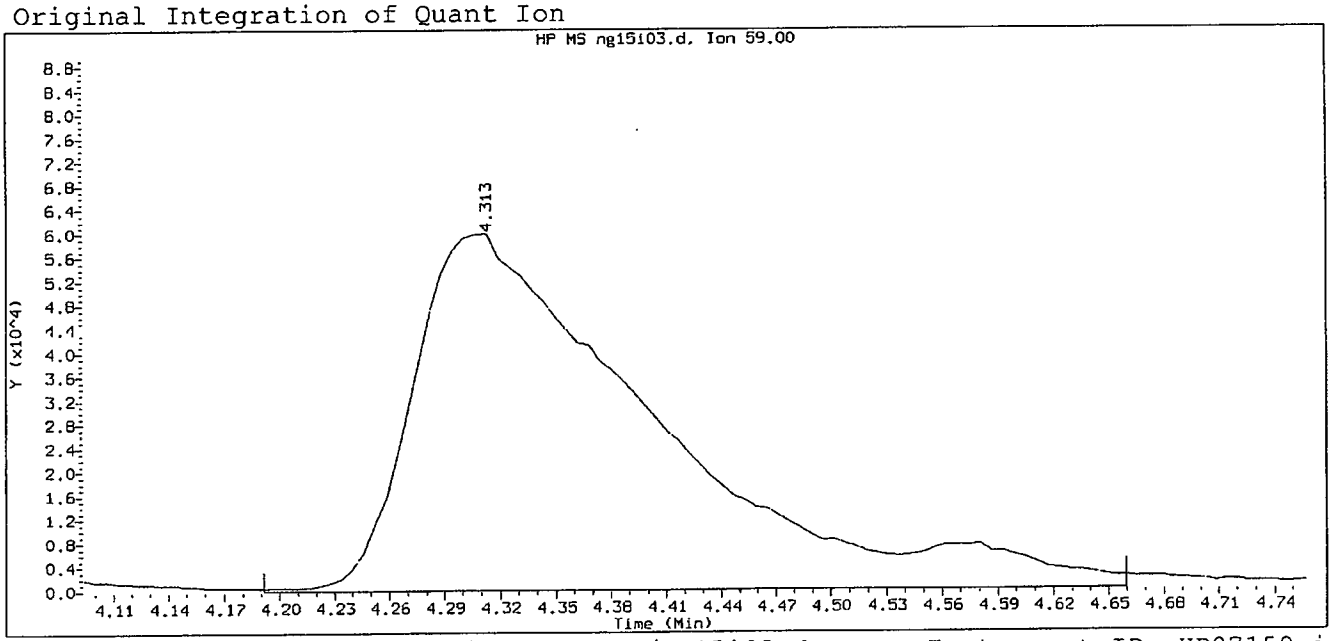
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:06. Target 3-5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 12:42 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:02
Date, time and analyst ID of latest file update: 15-Aug-2012 13:02 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 27		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 448		
Retention Time (minutes)	: 4.313		
Quant Ion	: 59.00		
Area	: 546947		
On-column Amount (ng)	: 293.0376		
Integration start scan	: 427	Integration stop scan:	504
Y at integration start	: 0	Y at integration end:	0

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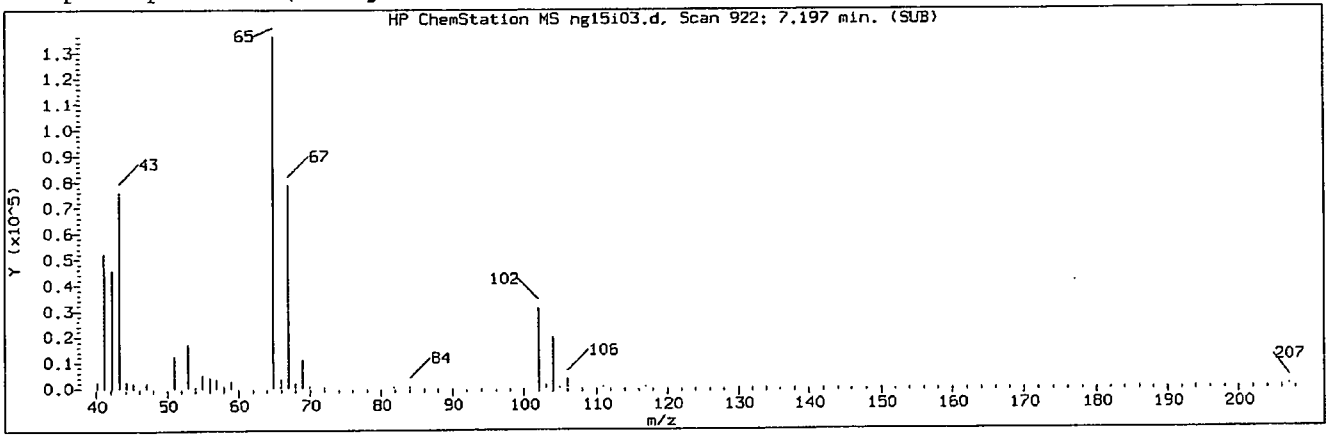
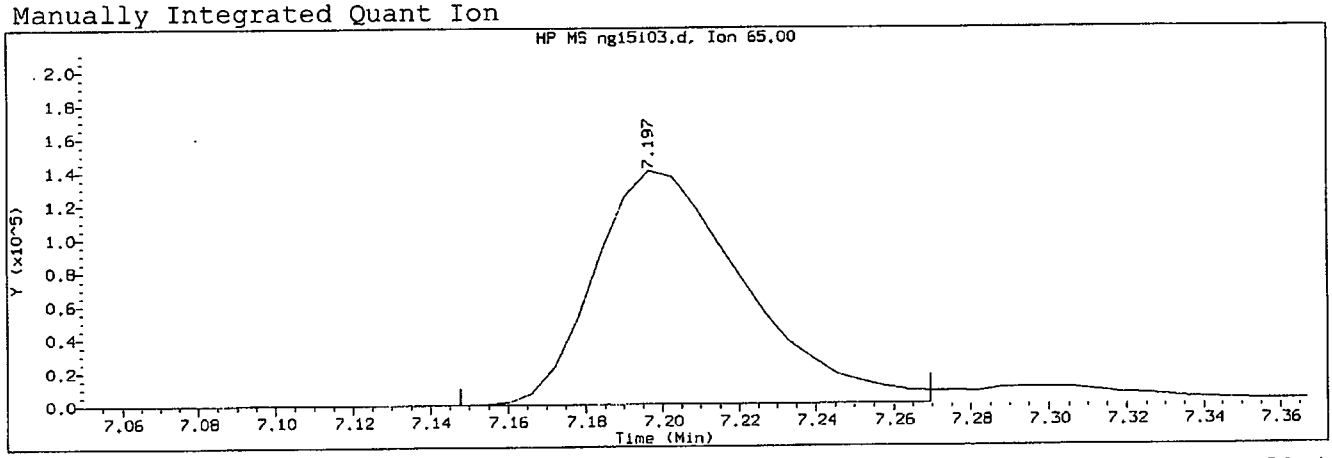
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 12:42 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:05
Date, time and analyst ID of latest file update: 15-Aug-2012 13:05 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

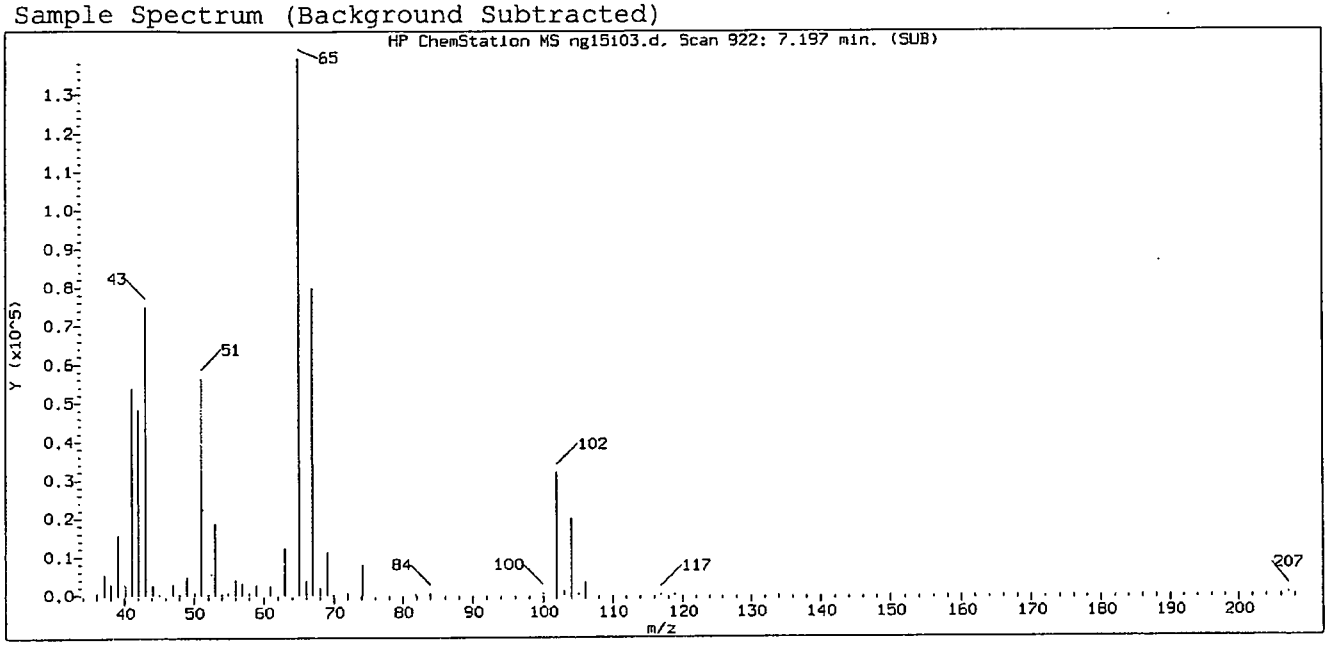
Compound Number	: 63		
Compound Name	: 1,2-Dichloroethane-d4(mz65)		
Scan Number	: 922		
Retention Time (minutes)	: 7.197		
Quant Ion	: 65.00		
Area (flag)	: 381662M		
On-Column Amount (ng)	: 49.8799		
Integration start scan	: 913	Integration stop scan:	933
Y at integration start	: 0	Y at integration end:	33

Reason for manual integration: improper integration

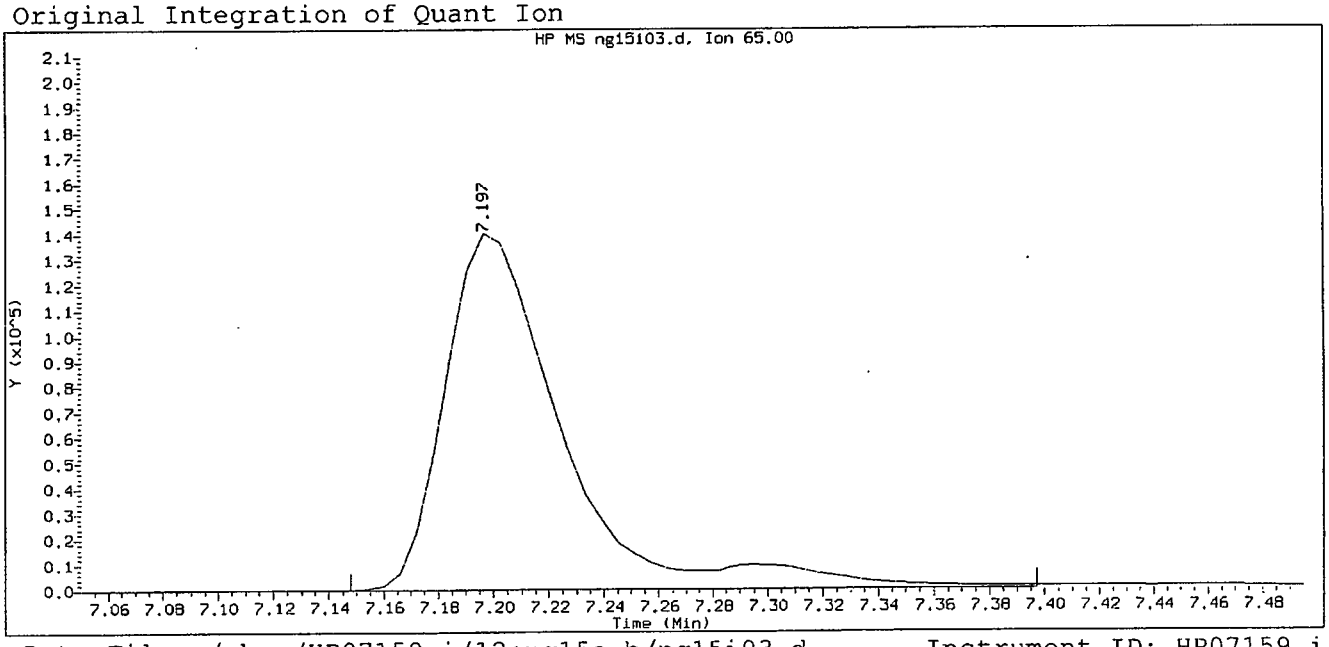
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 12:42 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:02
Date, time and analyst ID of latest file update: 15-Aug-2012 13:02 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 63		
Compound Name	: 1,2-Dichloroethane-d4(mz65)		
Scan Number	: 922		
Retention Time (minutes)	: 7.197		
Quant Ion	: 65.00		
Area	: 414973		
On-column Amount (ng)	: 52.7037		
Integration start scan	: 913	Integration stop scan:	954
Y at integration start	: 0	Y at integration end:	69

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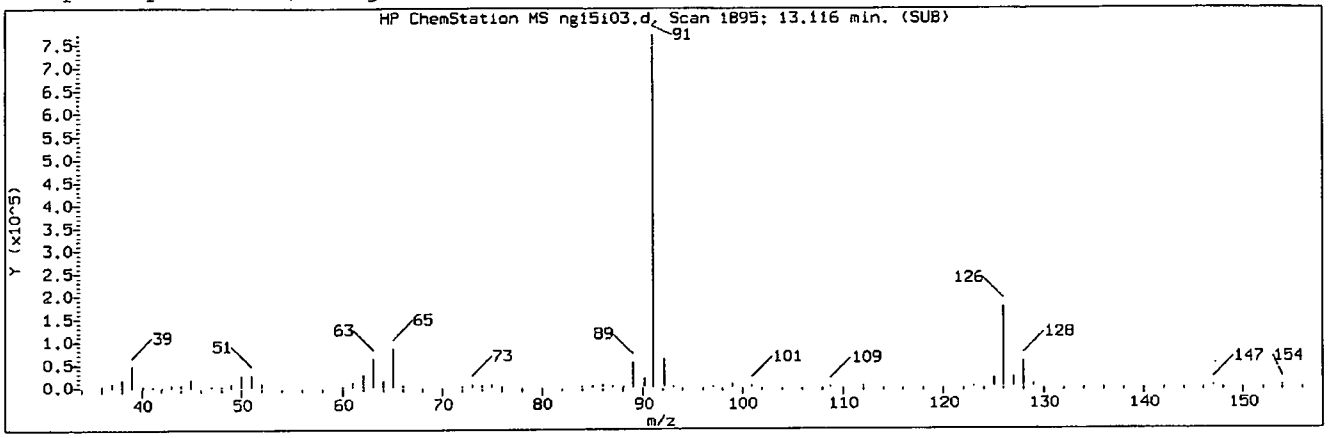
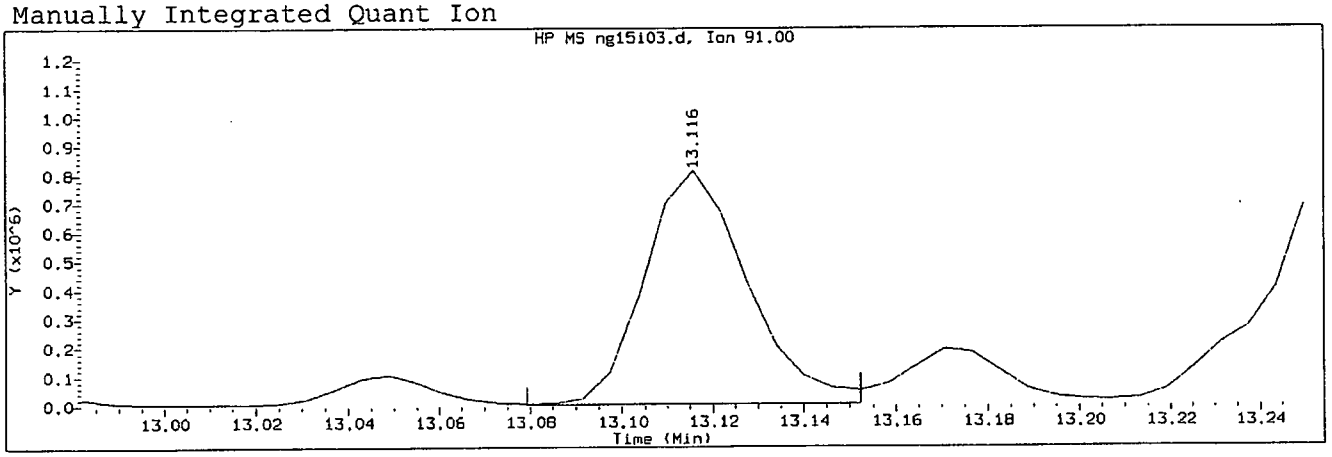
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 12:42 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:05
Date, time and analyst ID of latest file update: 15-Aug-2012 13:05 ads01731

Sample Name: VSTD050 Lab Sample ID: VSTD050

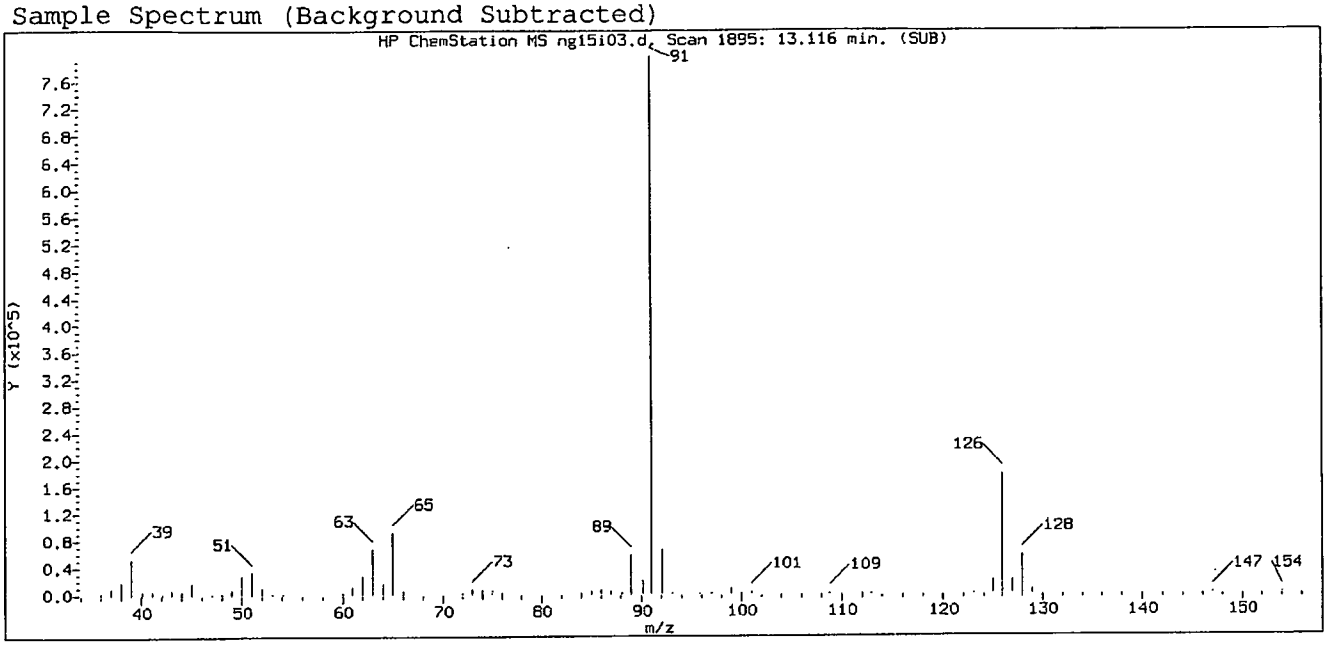
Compound Number : 133
Compound Name : Benzyl Chloride
Scan Number : 1895
Retention Time (minutes): 13.116
Quant Ion : 91.00
Area (flag) : 1281356M
On-Column Amount (ng) : 51.1978
Integration start scan : 1888 Integration stop scan: 1900
Y at integration start : 1302 Y at integration end: 1302

Reason for manual integration: improper integration

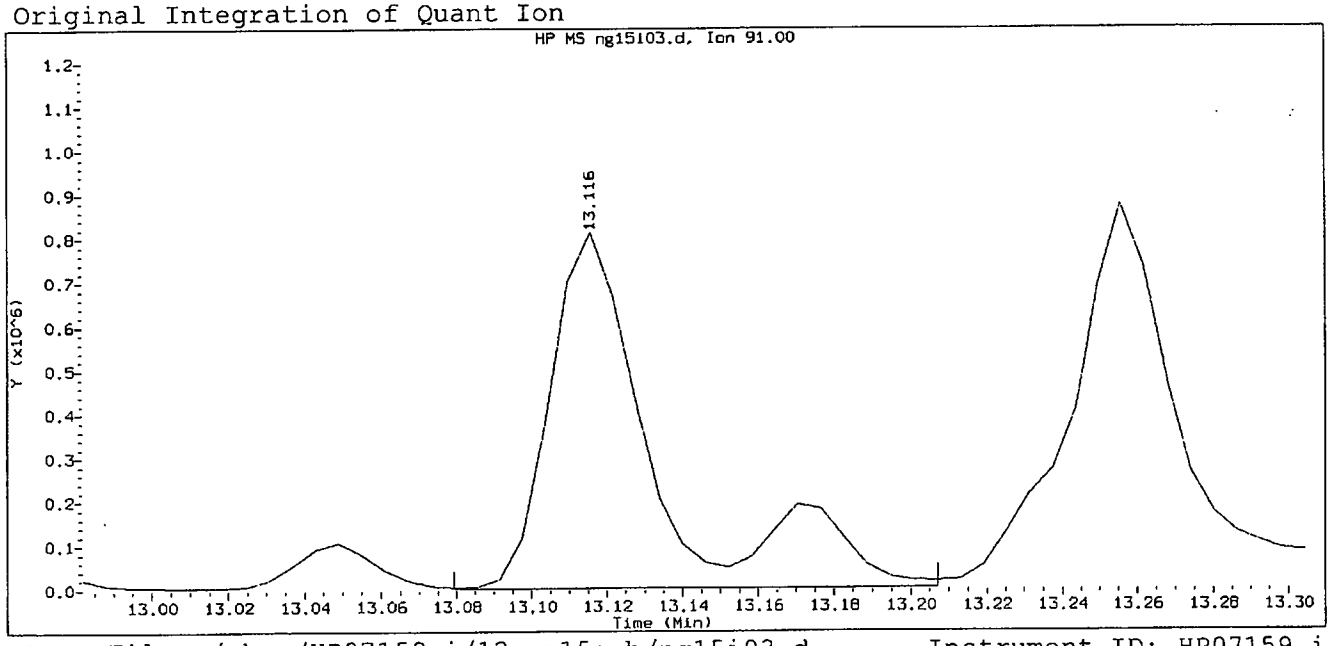
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i03.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 12:42 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:02
Date, time and analyst ID of latest file update: 15-Aug-2012 13:02 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 133		
Compound Name	: Benzyl Chloride		
Scan Number	: 1895		
Retention Time (minutes)	: 13.116		
Quant Ion	: 91.00		
Area	: 1569654		
On-column Amount (ng)	: 58.2441		
Integration start scan	: 1888	Integration stop scan:	1909
Y at integration start	: 1302	Y at integration end:	1302

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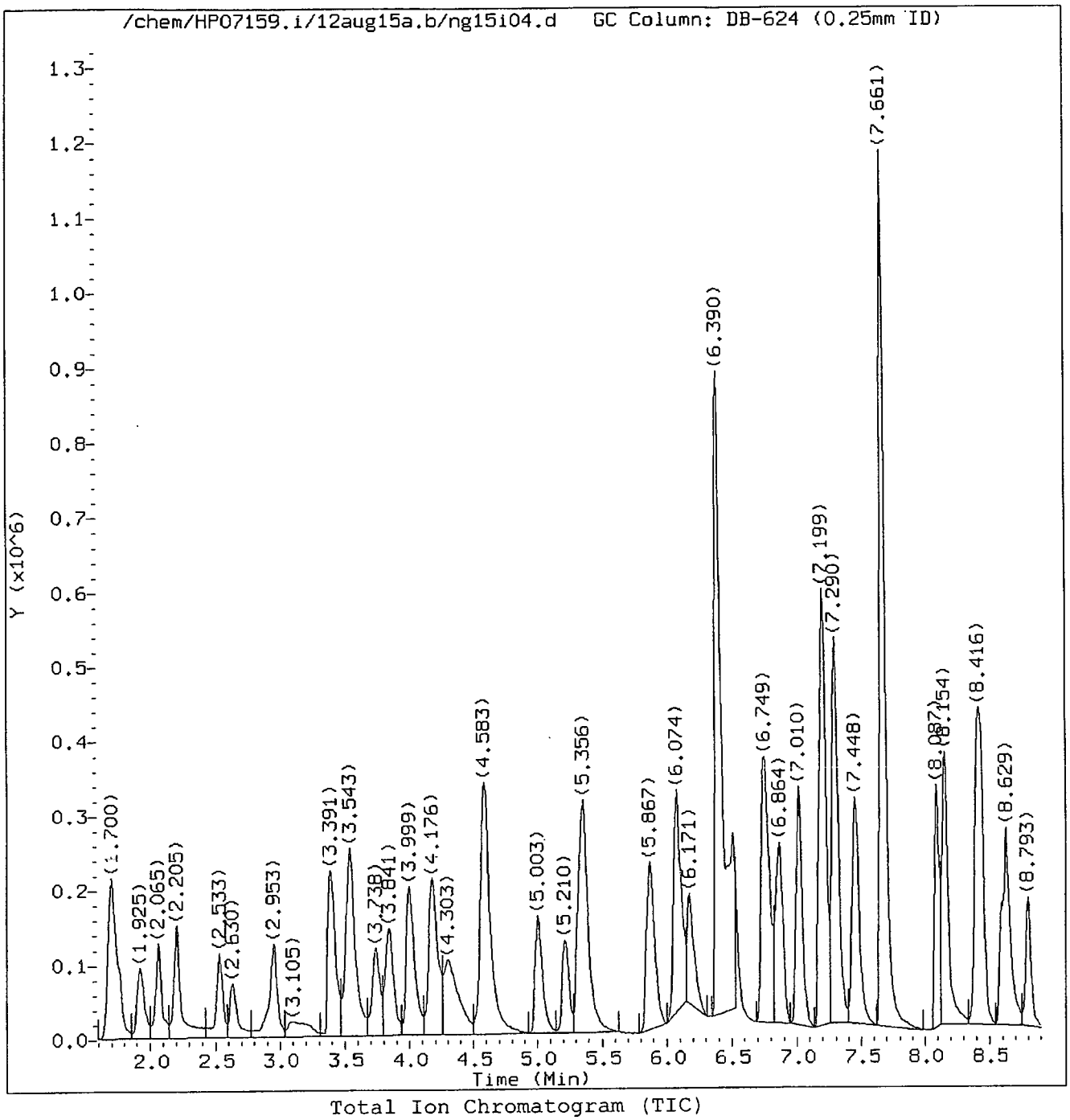
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i04.d
Injection date and time: 15-AUG-2012 13:05

Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 13:33

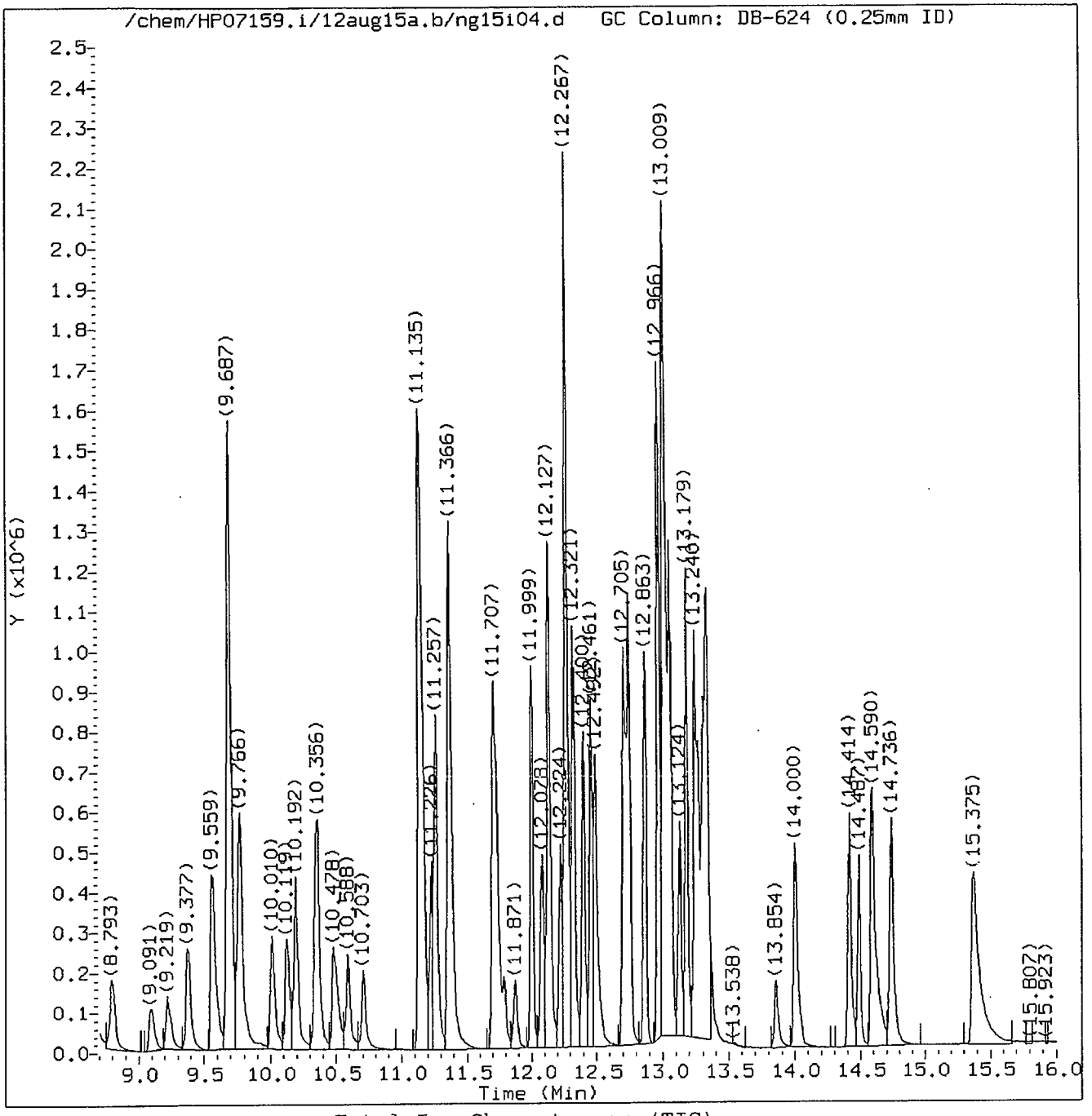
Sublist used: 8260WI

Date, time and analyst ID of latest file update: 15-Aug-2012 13:33 ads01731

Sample Name: VSTD020

Lab Sample ID: VSTD020

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:06.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i04.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:05 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:33
Date, time and analyst ID of latest file update: 15-Aug-2012 13:33 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

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on 08/15/2012 at 19:06
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i04.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:05 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:33
Date, time and analyst ID of latest file update: 15-Aug-2012 13:33 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.925	85	216074	21.215
3) Chloromethane	(1)	2.065	50	178068	21.321
4) Vinyl Chloride	(1)	2.205	62	183481	21.429
5) Bromomethane	(1)	2.533	94	112956	23.307
7) Chloroethane	(1)	2.630	64	96813	23.136
8) Trichlorofluoromethane	(1)	2.953	101	212022	21.183
12) Ethanol	(4)	3.105	45	145320	944.020
13) Acrolein	(4)	3.391	56	503026	205.269
16) 1,1-Dichloroethene	(1)	3.537	96	115061	19.590
18) Freon 113	(1)	3.543	101	113715	19.337
19) Acetone	(1)	3.585	58	50489	39.028
20) Methyl Iodide	(1)	3.731	142	209027	19.635
21) 2-Propanol	(4)	3.762	45	199249	188.777
22) Carbon Disulfide	(1)	3.841	76	380298	19.074
23) Allyl Chloride	(1)	3.993	41	264637	30.159
24) Methyl Acetate	(1)	4.023	43	182956	25.362
25) Methylene Chloride	(1)	4.169	84	150128	20.131
26)*t-Butyl Alcohol-d10	(4)	4.188	65	377056	250.000
27) t-Butyl Alcohol	(4)	4.316	59	362789	209.189
28) Acrylonitrile	(1)	4.571	53	89421	18.838
30) Methyl Tertiary Butyl Ether	(1)	4.577	73	494779	20.130
29) trans-1,2-Dichloroethene	(1)	4.583	96	135987	19.597
34) n-Hexane	(1)	5.003	57	177663M	19.317
36) 1,1-Dichloroethane	(1)	5.216	63	262297	19.806
33) 1,2-Dichloroethene (total)	(1)		96	290149	39.175
37) di-Isopropyl Ether	(1)	5.338	45	500356	20.344
38) 2-Chloro-1,3-Butadiene	(1)	5.362	53	200104	19.451
39) Ethyl t-Butyl Ether	(1)	5.873	59	476051	19.942
40) cis-1,2-Dichloroethene	(1)	6.074	96	154162	19.578
44) 2,2-Dichloropropane	(1)	6.080	77	184080	19.249
42) 2-Butanone	(1)	6.134	43	229798	36.670
45) Propionitrile	(4)	6.171	54	396321	204.606
47) Methacrylonitrile	(1)	6.390	67	506511	100.559
48) Bromochloromethane	(1)	6.396	128	83715	24.268
49) Tetrahydrofuran	(4)	6.475	71	70605	40.063
50) Chloroform	(1)	6.518	83	239093	19.718
52)$Dibromofluoromethane(mz111)	(1)	6.743	111	339196	49.605
51)$Dibromofluoromethane	(1)	6.743	113	330047	49.333

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/15/2012 at 19:06
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i04.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:05 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:33
Date, time and analyst ID of latest file update: 15-Aug-2012 13:33 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(1)	6.785	97	199115	19.860
56) Cyclohexane	(1)	6.858	56	238049	19.150
55) Cyclohexane (mz 69)	(1)	6.864	69	73998	19.197
54) Cyclohexane (mz 84)	(1)	6.864	84	196656	18.951
59) Carbon Tetrachloride	(1)	7.010	117	144961	18.413
58) 1,1-Dichloropropene	(1)	7.017	75	191328	19.433
61) Isobutyl Alcohol	(4)	7.181	41	273243	490.728
63)$1,2-Dichloroethane-d4(mz65)	(1)	7.205	65	403577	52.039
64)$1,2-Dichloroethane-d4(mz104)	(1)	7.205	104	55699	49.332
62)$1,2-Dichloroethane-d4	(1)	7.205	102	90421	50.994
65) Benzene	(1)	7.290	78	595499	19.829
66) 1,2-Dichloroethane	(1)	7.309	62	194600	19.962
67) 1,2-Dichloroethane (mz 98)	(1)	7.309	98	19801	19.619
68) t-Amyl Methyl Ether	(1)	7.448	73	472364	19.908
70)*Fluorobenzene	(1)	7.667	96	1495429	50.000
69) n-Heptane	(1)	7.667	43	159946	19.213
71) n-Butanol	(4)	8.087	56	462926	924.340
74) Trichloroethene	(1)	8.160	95	144448	19.487
75) Methylcyclohexane	(1)	8.404	83	255425	26.215
76) 1,2-Dichloropropane	(1)	8.440	63	169874	19.858
78) Dibromomethane	(1)	8.592	93	104358	19.881
77) Methyl Methacrylate	(1)	8.629	69	168744	19.695
80) 1,4-Dioxane	(4)	8.635	88	65701	447.130
81) Bromodichloromethane	(1)	8.799	83	171422	18.739
82) 2-Nitropropane	(4)	9.097	41	93495	35.452
83) 2-Chloroethyl Vinyl Ether	(1)	9.219	63	115684	18.944
84) cis-1,3-Dichloropropene	(1)	9.377	75	242901	19.138
85) 4-Methyl-2-Pentanone	(1)	9.559	43	501809	38.227
86)$Toluene-d8	(2)	9.687	98	1464939	50.957
87)$Toluene-d8(mz100)	(2)	9.687	100	967953	50.341
88) Toluene	(2)	9.766	92	384671	20.505
89) trans-1,3-Dichloropropene	(2)	10.010	75	231416	19.489
90) Ethyl Methacrylate	(2)	10.125	69	276647	19.852
91) 1,1,2-Trichloroethane	(2)	10.192	97	153252	20.313
93) Tetrachloroethene	(2)	10.344	166	144120	19.786
94) 1,3-Dichloropropane	(2)	10.362	76	268875	20.244
95) 2-Hexanone	(2)	10.478	43	346360	35.765
96) Dibromochloromethane	(2)	10.588	129	136637	18.613

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/15/2012 at 19:06.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i04.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:05 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:33
Date, time and analyst ID of latest file update: 15-Aug-2012 13:33 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,2-Dibromoethane	(2)	10.703	107	165652	20.147
98) *Chlorobenzene-d5	(2)	11.135	117	1012774	50.000
100) Chlorobenzene	(2)	11.165	112	427109	20.229
101) 1,1,1,2-Tetrachloroethane	(2)	11.226	131	136125	19.678
102) Ethylbenzene	(2)	11.263	91	683702	19.974
103) m+p-Xylene	(2)	11.366	106	565346	41.364
104) Xylene (Total)	(2)		106	843980	61.963
106) o-Xylene	(2)	11.701	106	278634	20.599
109) Styrene	(2)	11.731	104	468992	20.136
110) Bromoform	(2)	11.871	173	94224	17.620
111) Isopropylbenzene	(2)	11.999	105	672343	20.431
112) Cyclohexanone	(4)	12.084	55	280797	486.333
114) $4-Bromofluorobenzene	(2)	12.127	95	513895	49.994
115) $4-Bromofluorobenzene(mz174)	(2)	12.133	174	410429	50.367
116) 1,1,2,2-Tetrachloroethane	(3)	12.224	83	263562	20.320
117) Bromobenzene	(3)	12.261	156	180024	20.149
118) trans-1,4-Dichloro-2-Butene	(3)	12.267	53	322490	98.073
119) 1,2,3-Trichloropropane	(3)	12.267	110	74660	20.758
120) n-Propylbenzene	(3)	12.321	91	784692	20.133
121) 2-Chlorotoluene	(3)	12.400	126	163837	19.670
122) 1,3,5-Trimethylbenzene	(3)	12.461	105	575362	20.038
123) 4-Chlorotoluene	(3)	12.492	126	182294	20.159
124) tert-Butylbenzene	(3)	12.705	134	124587	19.831
125) Pentachloroethane	(3)	12.723	167	104029	20.070
126) 1,2,4-Trimethylbenzene	(3)	12.747	105	593462	19.927
127) sec-Butylbenzene	(3)	12.863	105	672439	19.956
128) p-Isopropyltoluene	(3)	12.966	119	592726	20.243
129) 1,3-Dichlorobenzene	(3)	12.966	146	315968	19.929
130) *1,4-Dichlorobenzene-d4	(3)	13.009	152	576736	50.000
131) 1,4-Dichlorobenzene	(3)	13.027	146	376989	20.757
132) 1,2,3-Trimethylbenzene	(3)	13.051	105	674575	22.337
133) Benzyl Chloride	(3)	13.124	91	412392M	17.209
134) 1,3-Diethylbenzene	(3)	13.179	105	389659	21.928
135) 1,4-Diethylbenzene	(3)	13.240	105	364268	21.601
136) n-Butylbenzene	(3)	13.264	92	315581	20.773
137) 1,2-Dichlorobenzene	(3)	13.307	146	349724	20.405
138) 1,2-Diethylbenzene	(3)	13.331	105	431510	23.214
139) 1,2-Dibromo-3-Chloropropane	(3)	13.854	75	58711	19.136

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/15/2012 at 19:06
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i04.d
Injection date and time: 15-AUG-2012 13:05

Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 13:33
Date, time and analyst ID of latest file update: 15-Aug-2012 13:33 ads01731

Sublist used: 8260WI

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
140) 1,2,4-Trichlorobenzene	(3)	14.414	180	243796	20.652
141) Hexachlorobutadiene	(3)	14.487	225	85513	20.314
142) Naphthalene	(3)	14.590	128	911224	20.938
144) 1,2,3-Trichlorobenzene	(3)	14.736	180	249369	21.127
145) 2-Methylnaphthalene	(3)	15.375	142	565342	22.512

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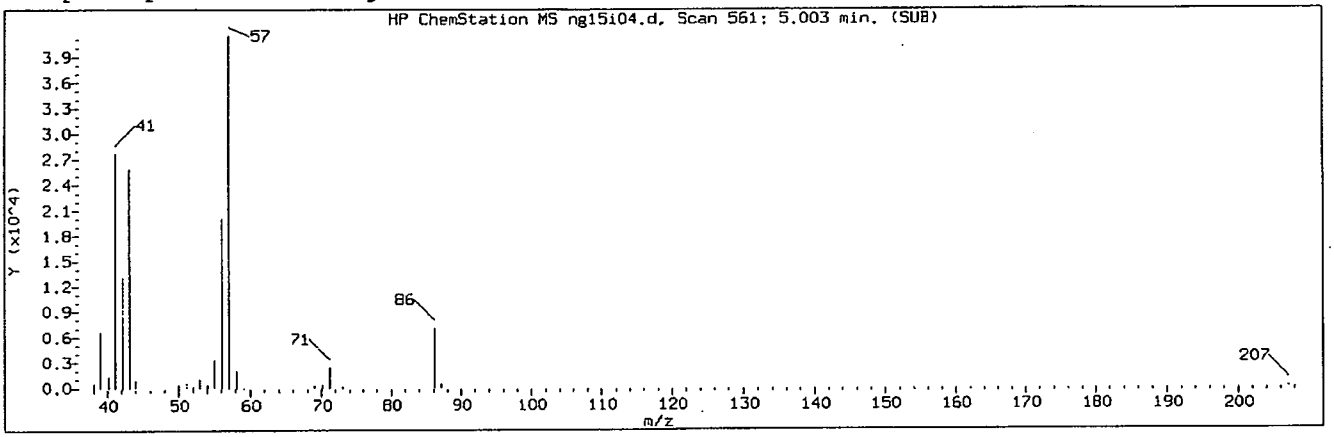
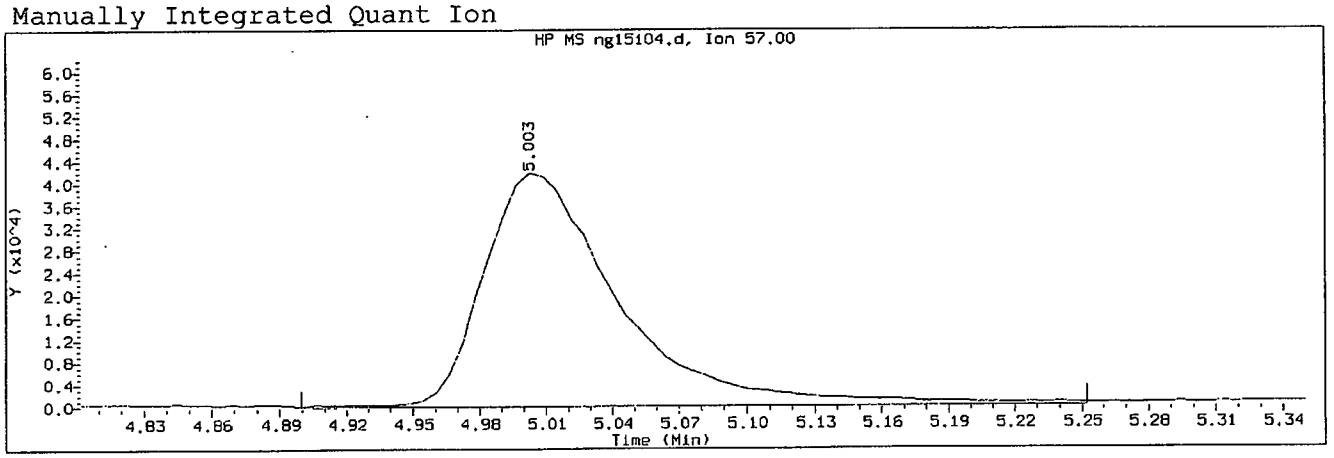
on 08/15/2012 at 19:06.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i04.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:05 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:33
Date, time and analyst ID of latest file update: 15-Aug-2012 13:33 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

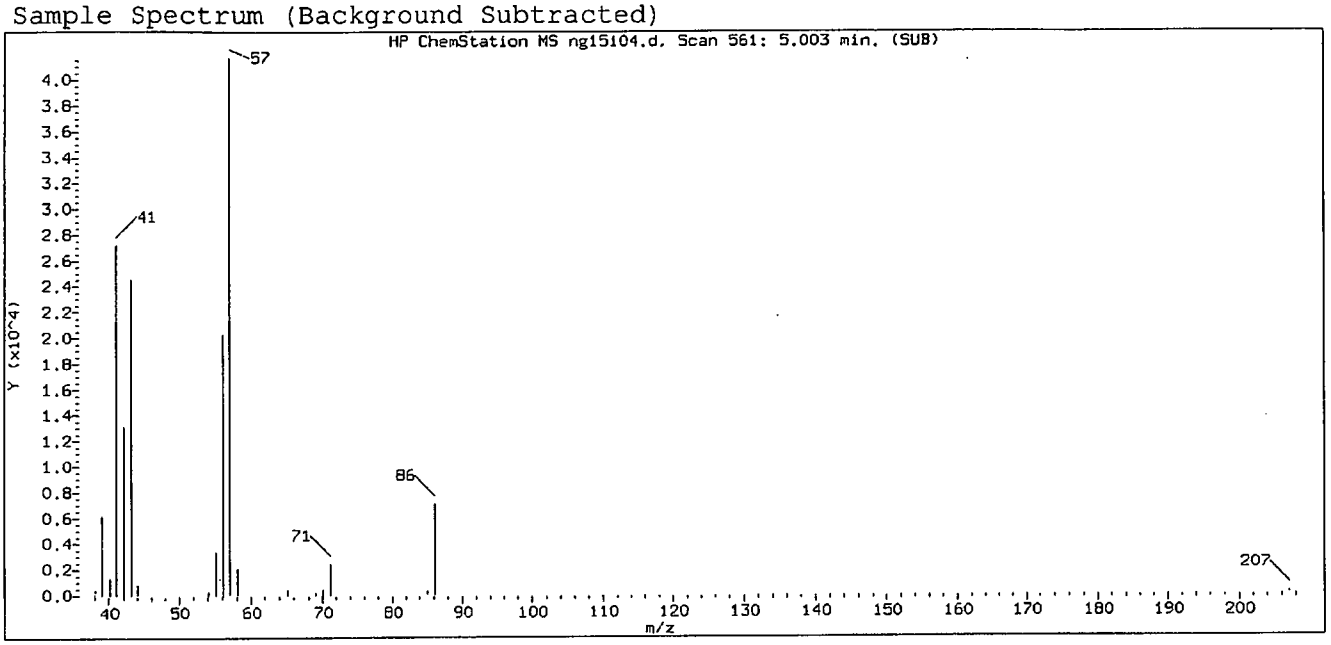
Compound Number	: 34		
Compound Name	: n-Hexane		
Scan Number	: 561		
Retention Time (minutes)	: 5.003		
Quant Ion	: 57.00		
Area (flag)	: 177663M		
On-Column Amount (ng)	: 19.3173		
Integration start scan	: 543	Integration stop scan:	601
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

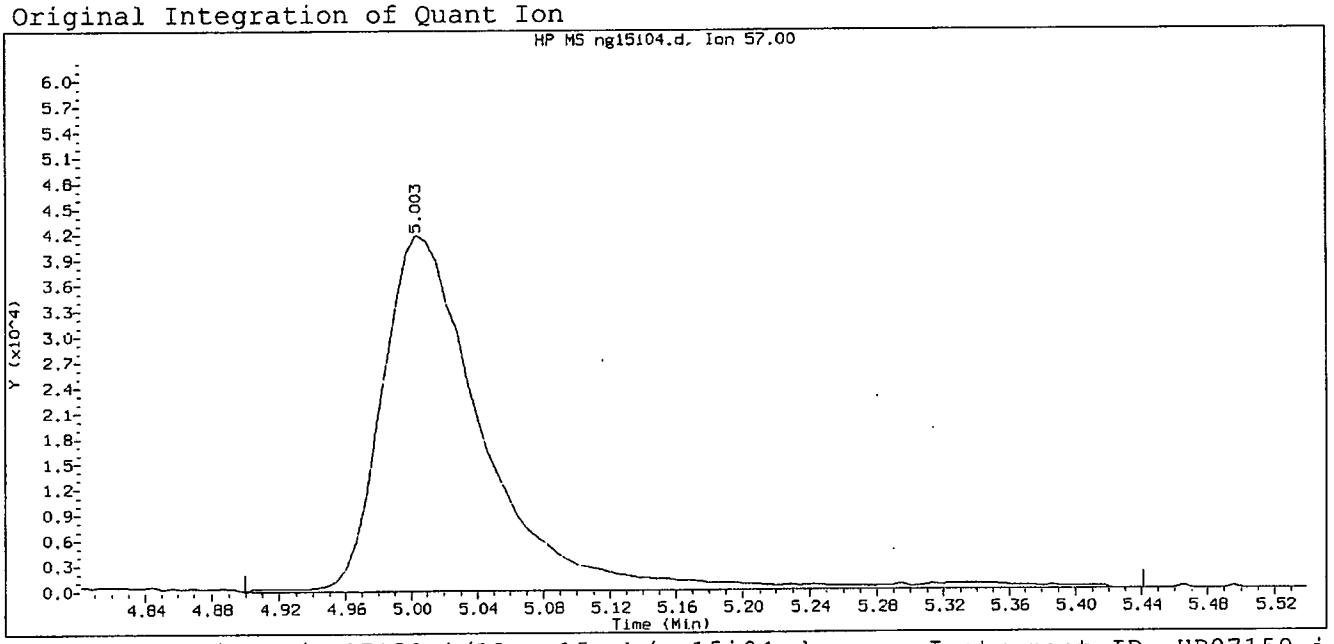
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i04.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:05 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:25
Date, time and analyst ID of latest file update: 15-Aug-2012 13:25 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number	: 34		
Compound Name	: n-Hexane		
Scan Number	: 561		
Retention Time (minutes)	: 5.003		
Quant Ion	: 57.00		
Area	: 182256		
On-column Amount (ng)	: 19.6938		
Integration start scan	: 543	Integration stop scan:	632
Y at integration start	: 0	Y at integration end:	0

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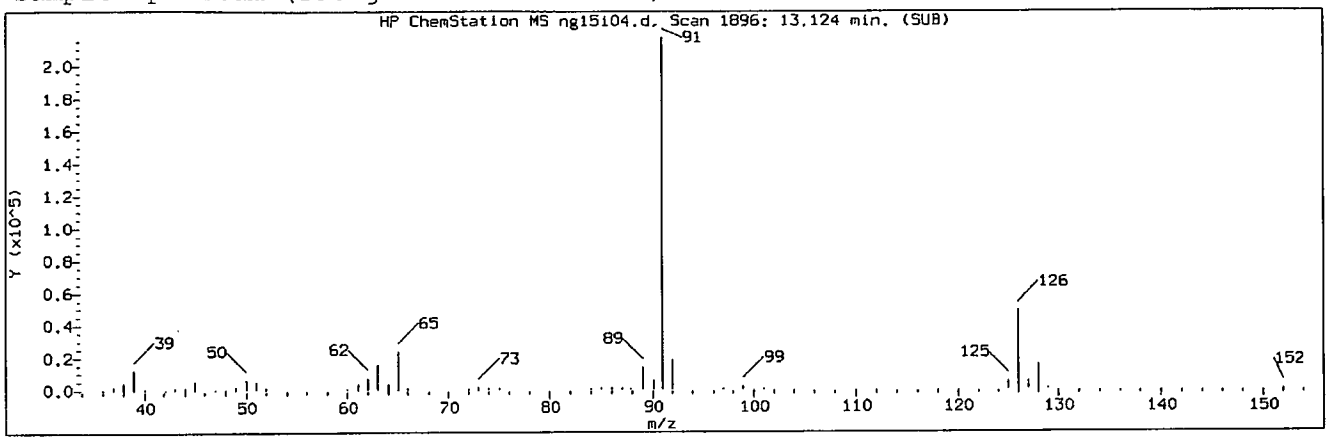
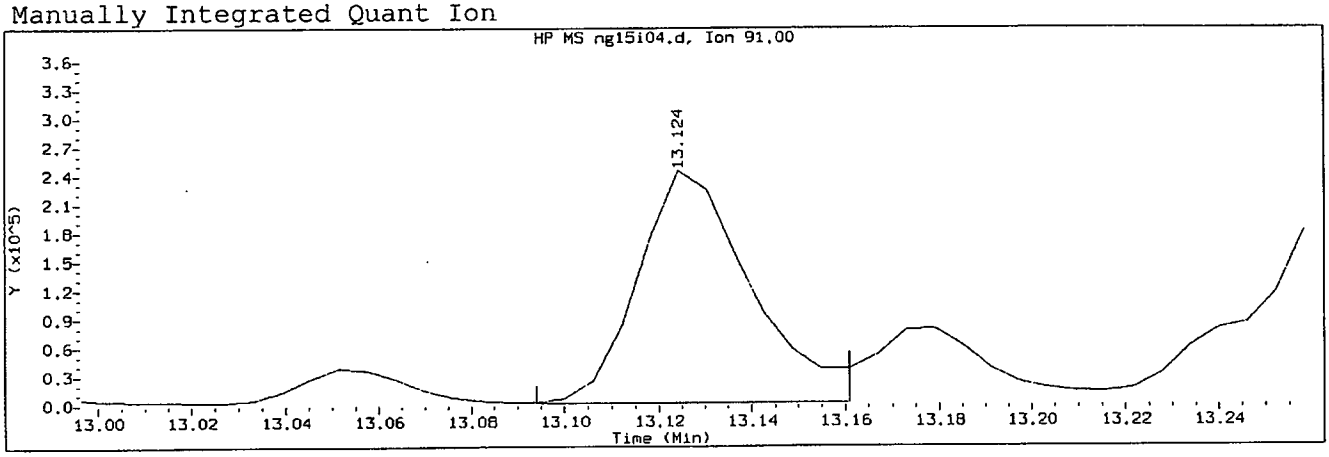
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i04.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:05 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:33
Date, time and analyst ID of latest file update: 15-Aug-2012 13:33 ads01731

Sample Name: VSTD020 Lab Sample ID: VSTD020

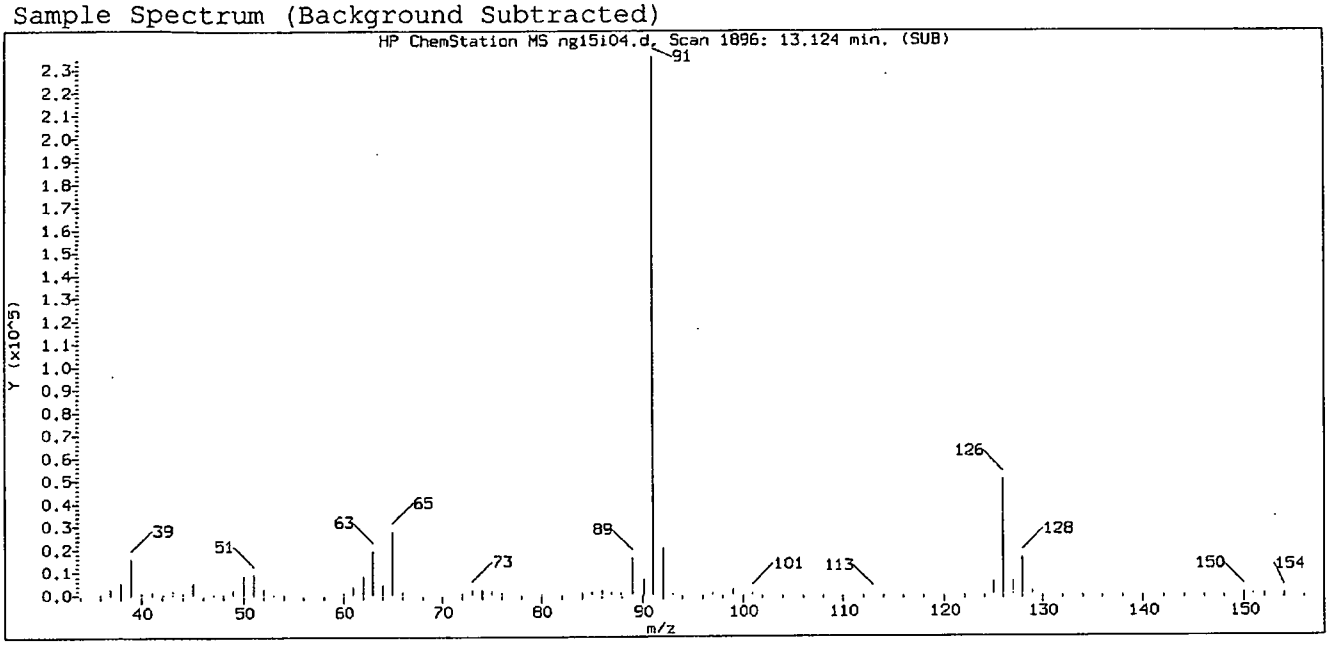
Compound Number	: 133		
Compound Name	: Benzyl Chloride		
Scan Number	: 1896		
Retention Time (minutes)	: 13.124		
Quant Ion	: 91.00		
Area (flag)	: 412392M		
On-Column Amount (ng)	: 17.2088		
Integration start scan	: 1890	Integration stop scan:	1901
Y at integration start	: 1275	Y at integration end:	1275

Reason for manual integration: improper integration

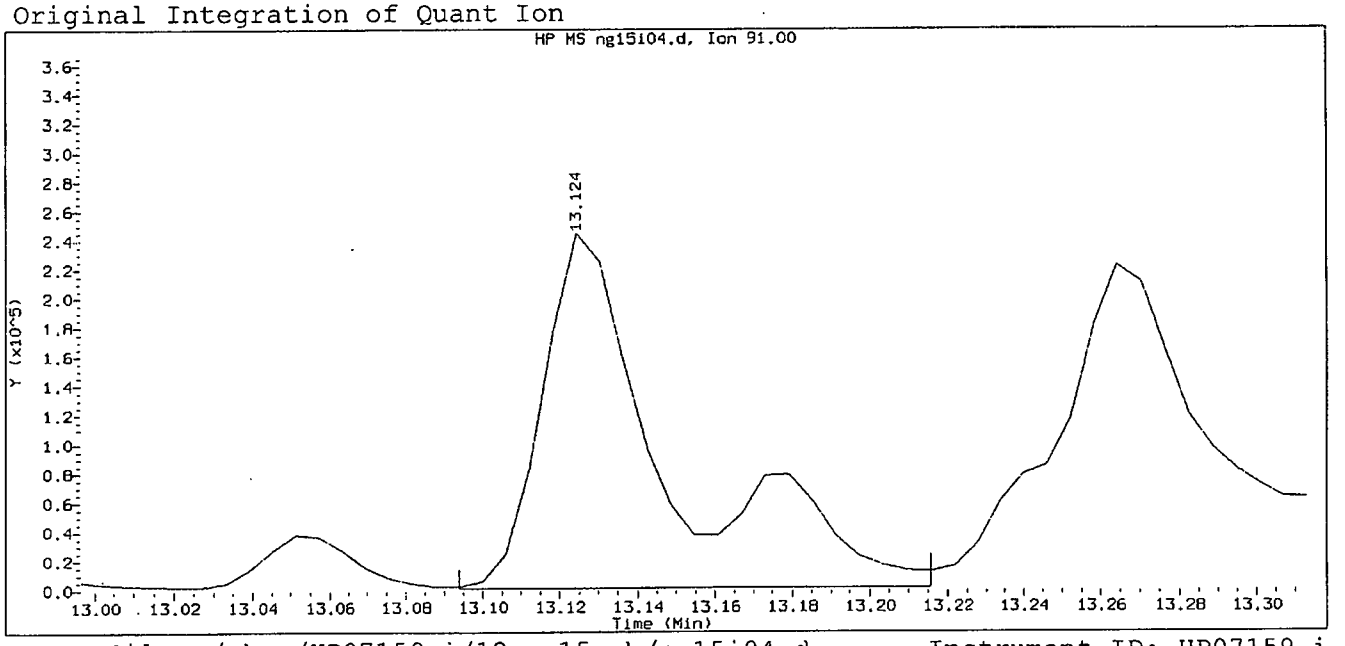
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 685 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i04.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:05 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 13:25
Date, time and analyst ID of latest file update: 15-Aug-2012 13:25 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number	: 133		
Compound Name	: Benzyl Chloride		
Scan Number	: 1896		
Retention Time (minutes)	: 13.124		
Quant Ion	: 91.00		
Area	: 541438		
On-column Amount (ng)	: 21.1688		
Integration start scan	: 1890	Integration stop scan:	1910
Y at integration start	: 1275	Y at integration end:	1275

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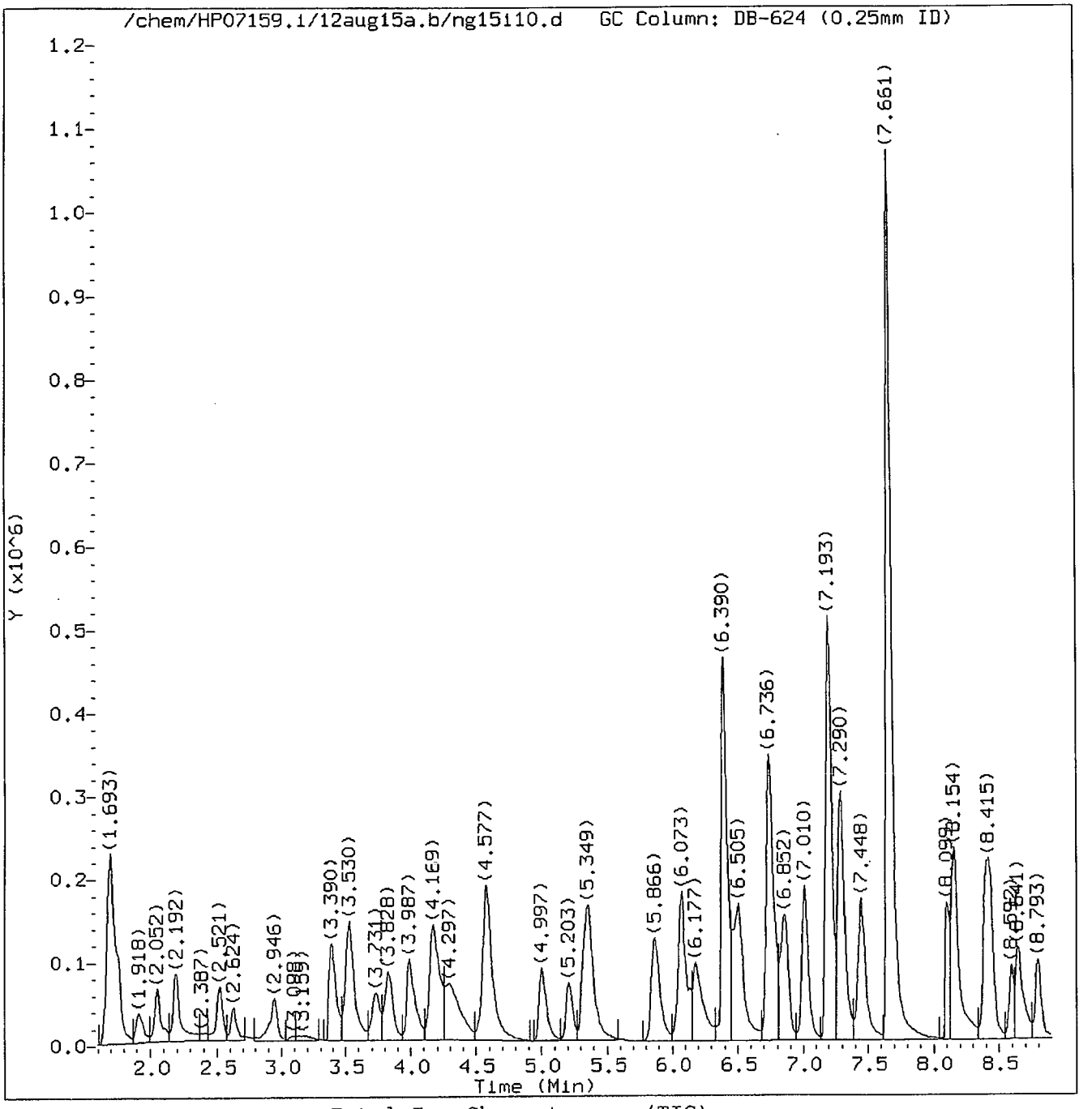
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d
Injection date and time: 15-AUG-2012 16:11

Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 16:31

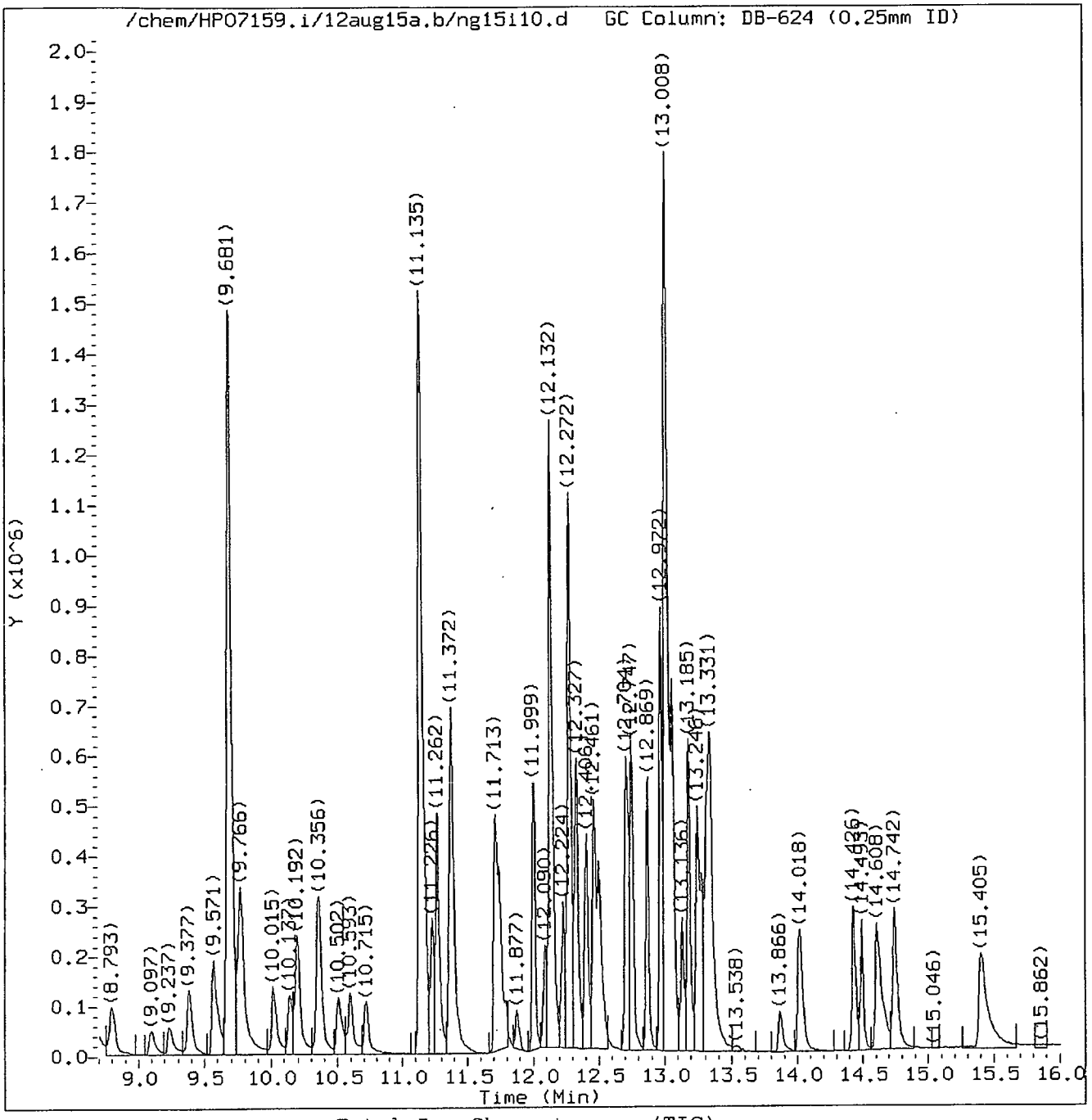
Sublist used: 8260WI

Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010

Lab Sample ID: VSTD010

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:07
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.918	85	78398	8.123
3) Chloromethane	(1)	2.052	50	93635	10.896
4) Vinyl Chloride	(1)	2.186	62	93048	10.696
5) Bromomethane	(1)	2.521	94	60011M	11.401
7) Chloroethane	(1)	2.618	64	50044	11.238
8) Trichlorofluoromethane	(1)	2.946	101	88203	9.120
12) Ethanol	(4)	3.165	45	78364	497.759
13) Acrolein	(4)	3.390	56	267197	105.424
16) 1,1-Dichloroethene	(1)	3.530	96	67420	11.291
18) Freon 113	(1)	3.543	101	64906	10.694
19) Acetone	(1)	3.603	58	24906M	20.219
20) Methyl Iodide	(1)	3.725	142	119317	11.305
21) 2-Propanol	(4)	3.762	45	127858M	117.853
22) Carbon Disulfide	(1)	3.828	76	216731	10.733
23) Allyl Chloride	(1)	3.993	41	135976M	10.784
24) Methyl Acetate	(1)	4.029	43	97174	10.800
25) Methylene Chloride	(1)	4.157	84	82253	10.817
26)*t-Butyl Alcohol-d10	(4)	4.181	65	374335	250.000
27) t-Butyl Alcohol	(4)	4.321	59	217612M	120.696
30) Methyl Tertiary Butyl Ether	(1)	4.571	73	262634M	10.880
29) trans-1,2-Dichloroethene	(1)	4.577	96	76940M	11.187
28) Acrylonitrile	(1)	4.589	53	44588	9.949
34) n-Hexane	(1)	4.997	57	101252	10.998
36) 1,1-Dichloroethane	(1)	5.203	63	146334M	11.151
37) di-Isopropyl Ether	(1)	5.331	45	268987	10.968
33) 1,2-Dichloroethene (total)	(1)		96	165843	22.490
38) 2-Chloro-1,3-Butadiene	(1)	5.362	53	114262	10.859
39) Ethyl t-Butyl Ether	(1)	5.866	59	266854	11.124
40) cis-1,2-Dichloroethene	(1)	6.073	96	88903	11.302
44) 2,2-Dichloropropane	(1)	6.073	77	105336	11.101
42) 2-Butanone	(1)	6.152	43	110482	19.005
45) Propionitrile	(4)	6.183	54	194448M	102.032
47) Methacrylonitrile	(1)	6.390	67	273061	54.690
48) Bromochloromethane	(1)	6.390	128	43186	10.701
49) Tetrahydrofuran	(4)	6.481	71	35049M	19.948
50) Chloroform	(1)	6.511	83	135568	10.952
51)$Dibromofluoromethane	(1)	6.736	113	327891	49.973
52)$Dibromofluoromethane(mz111)	(1)	6.736	111	336992	50.281

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/15/2012 at 19:07
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(1)	6.779	97	111759	10.974
56) Cyclohexane	(1)	6.852	56	134172	10.530
54) Cyclohexane (mz 84)	(1)	6.852	84	112536	10.607
55) Cyclohexane (mz 69)	(1)	6.858	69	42023M	10.533
58) 1,1-Dichloropropene	(1)	7.010	75	112740	10.753
59) Carbon Tetrachloride	(1)	7.010	117	81406	10.907
61) Isobutyl Alcohol	(4)	7.181	41	171884	300.092
63)$1,2-Dichloroethane-d4(mz65)	(1)	7.193	65	394935	51.229
62)$1,2-Dichloroethane-d4	(1)	7.193	102	89359	50.918
64)$1,2-Dichloroethane-d4(mz104)	(1)	7.193	104	55392	49.707
65) Benzene	(1)	7.284	78	338392	11.223
66) 1,2-Dichloroethane	(1)	7.302	62	106556	11.157
67) 1,2-Dichloroethane (mz 98)	(1)	7.302	98	10345	10.497
68) t-Amyl Methyl Ether	(1)	7.448	73	252324	10.895
70)*Fluorobenzene	(1)	7.655	96	1467854	50.000
69) n-Heptane	(1)	7.661	43	92654	10.579
71) n-Butanol	(4)	8.105	56	275511	614.660
74) Trichloroethene	(1)	8.160	95	83361	11.176
75) Methylcyclohexane	(1)	8.397	83	134191	10.835
76) 1,2-Dichloropropane	(1)	8.434	63	91172	10.933
78) Dibromomethane	(1)	8.592	93	55875	11.069
80) 1,4-Dioxane	(4)	8.647	88	39710M	285.359
77) Methyl Methacrylate	(1)	8.647	69	91322	10.844
81) Bromodichloromethane	(1)	8.793	83	90939	10.813
82) 2-Nitropropane	(4)	9.097	41	45795	18.306
83) 2-Chloroethyl Vinyl Ether	(1)	9.243	63	52956	9.313
84) cis-1,3-Dichloropropene	(1)	9.383	75	132575	10.906
85) 4-Methyl-2-Pentanone	(1)	9.571	43	235322M	18.794
86)$Toluene-d8	(2)	9.681	98	1444130	50.407
87)$Toluene-d8(mz100)	(2)	9.681	100	963886	50.307
88) Toluene	(2)	9.766	92	218708	11.271
89) trans-1,3-Dichloropropene	(2)	10.015	75	124865	10.864
90) Ethyl Methacrylate	(2)	10.143	69	151064	10.750
91) 1,1,2-Trichloroethane	(2)	10.198	97	87002	11.347
93) Tetrachloroethene	(2)	10.344	166	85119	11.496
94) 1,3-Dichloropropane	(2)	10.368	76	150831	11.324
95) 2-Hexanone	(2)	10.502	43	179116	20.464
96) Dibromochloromethane	(2)	10.593	129	69665	10.658

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,2-Dibromoethane	(2)	10.715	107	90040	11.308
98)*Chlorobenzene-d5	(2)	11.135	117	1023982M	50.000
100) Chlorobenzene	(2)	11.165	112	248592	11.590
101) 1,1,1,2-Tetrachloroethane	(2)	11.226	131	76035	11.425
102) Ethylbenzene	(2)	11.269	91	399212	10.582
103) m+p-Xylene	(2)	11.372	106	331271	22.974
104) Xylene (Total)	(2)		106	495505	34.566
106) o-Xylene	(2)	11.713	106	164234	11.592
109) Styrene	(2)	11.743	104	267189	11.279
110) Bromoform	(2)	11.877	173	48322	9.771
111) Isopropylbenzene	(2)	12.005	105	409108	11.677
112) Cyclohexanone	(4)	12.090	55	137118	243.543
115)$4-Bromofluorobenzene(mz174)	(2)	12.132	174	422312	51.769
114)$4-Bromofluorobenzene	(2)	12.132	95	528908	50.778
116) 1,1,2,2-Tetrachloroethane	(3)	12.224	83	154040	11.781
117) Bromobenzene	(3)	12.266	156	103864	11.345
119) 1,2,3-Trichloropropane	(3)	12.272	110	43333	11.845
118) trans-1,4-Dichloro-2-Butene	(3)	12.278	53	185641	57.234
120) n-Propylbenzene	(3)	12.327	91	464297	12.094
121) 2-Chlorotoluene	(3)	12.406	126	97367	11.238
122) 1,3,5-Trimethylbenzene	(3)	12.461	105	348416	11.616
123) 4-Chlorotoluene	(3)	12.504	126	109165	11.614
124) tert-Butylbenzene	(3)	12.704	134	75587	11.535
125) Pentachloroethane	(3)	12.729	167	59028	11.252
126) 1,2,4-Trimethylbenzene	(3)	12.747	105	349225	11.482
127) sec-Butylbenzene	(3)	12.869	105	402621	11.399
128) p-Isopropyltoluene	(3)	12.972	119	340812	11.341
129) 1,3-Dichlorobenzene	(3)	12.972	146	168237	10.894
130)*1,4-Dichlorobenzene-d4	(3)	13.008	152	569627	50.000
131) 1,4-Dichlorobenzene	(3)	13.027	146	224922A	11.506
132) 1,2,3-Trimethylbenzene	(3)	13.057	105	378415	11.610
133) Benzyl Chloride	(3)	13.136	91	186922	8.984
134) 1,3-Diethylbenzene	(3)	13.185	105	207535	11.284
135) 1,4-Diethylbenzene	(3)	13.246	105	199965	11.275
136) n-Butylbenzene	(3)	13.276	92	185128	11.680
137) 1,2-Dichlorobenzene	(3)	13.313	146	200860	11.332
138) 1,2-Diethylbenzene	(3)	13.337	105	262182	12.048
139) 1,2-Dibromo-3-Chloropropane	(3)	13.866	75	30992	10.353

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:07:
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
140) 1,2,4-Trichlorobenzene	(3)	14.426	180	137561	11.341
141) Hexachlorobutadiene	(3)	14.493	225	46928	11.142
142) Naphthalene	(3)	14.608	128	494469	10.908
144) 1,2,3-Trichlorobenzene	(3)	14.742	180	138190	11.351
145) 2-Methylnaphthalene	(3)	15.405	142	292216	10.994

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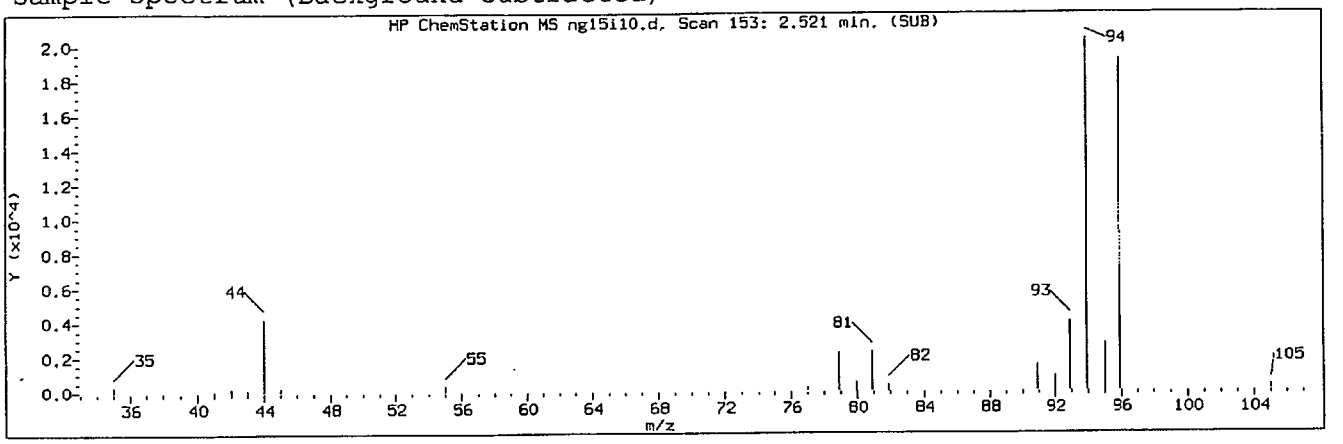
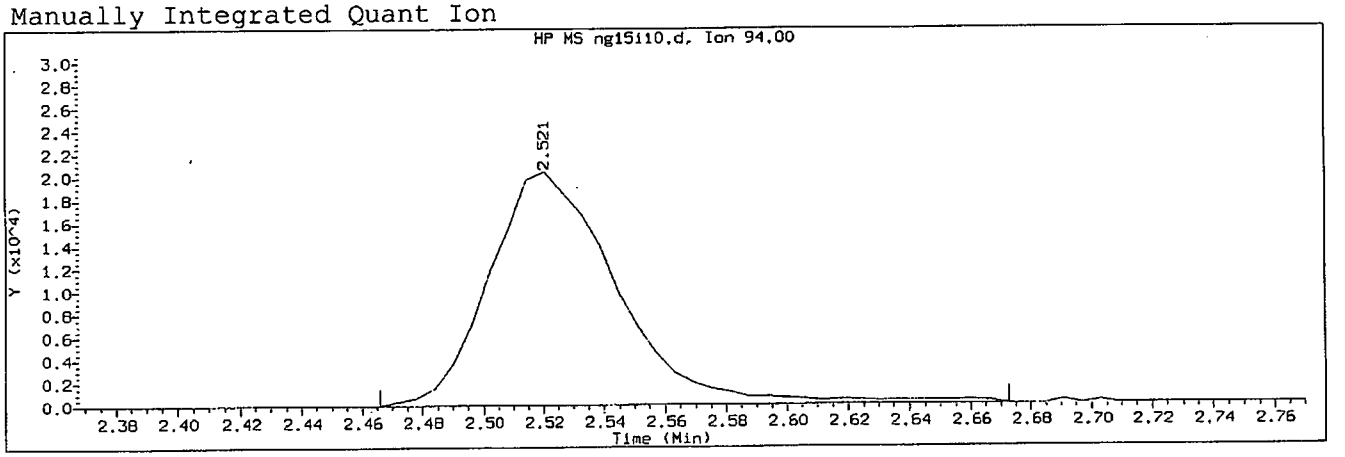
on 08/15/2012 at 19:07:
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

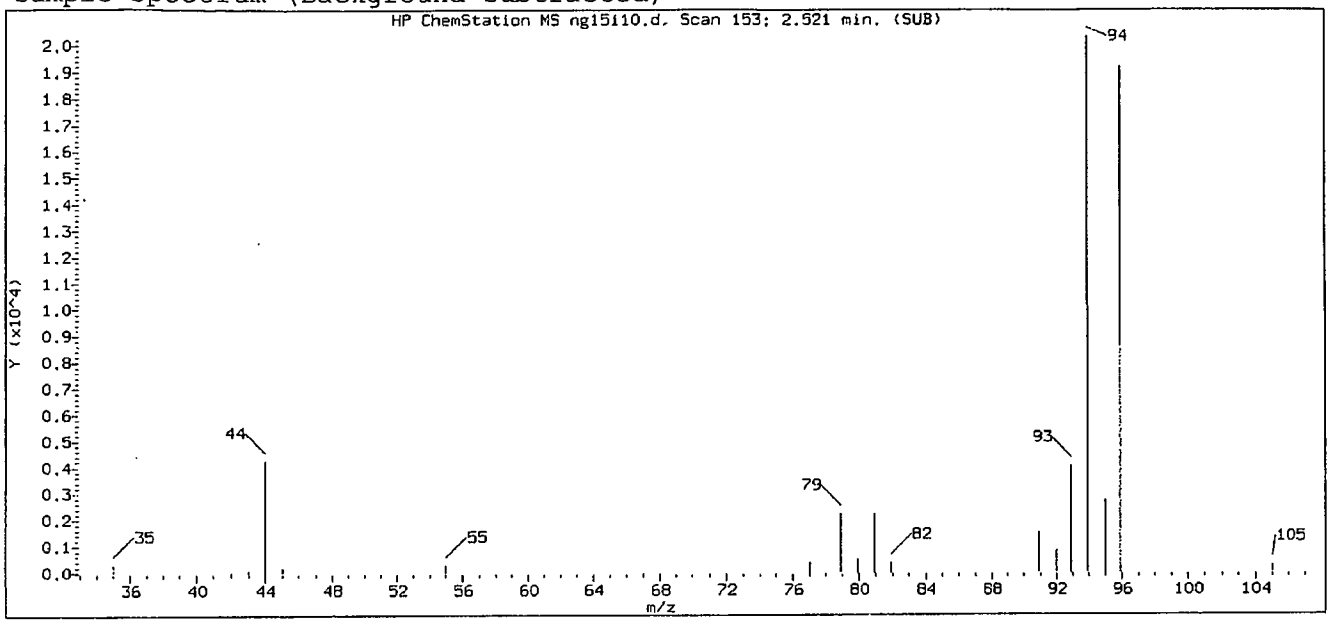
Compound Number	: 5		
Compound Name	: Bromomethane		
Scan Number	: 153		
Retention Time (minutes)	: 2.521		
Quant Ion	: 94.00		
Area (flag)	: 60011M		
On-Column Amount (ng)	: 11.4008		
Integration start scan	: 143	Integration stop scan:	177
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

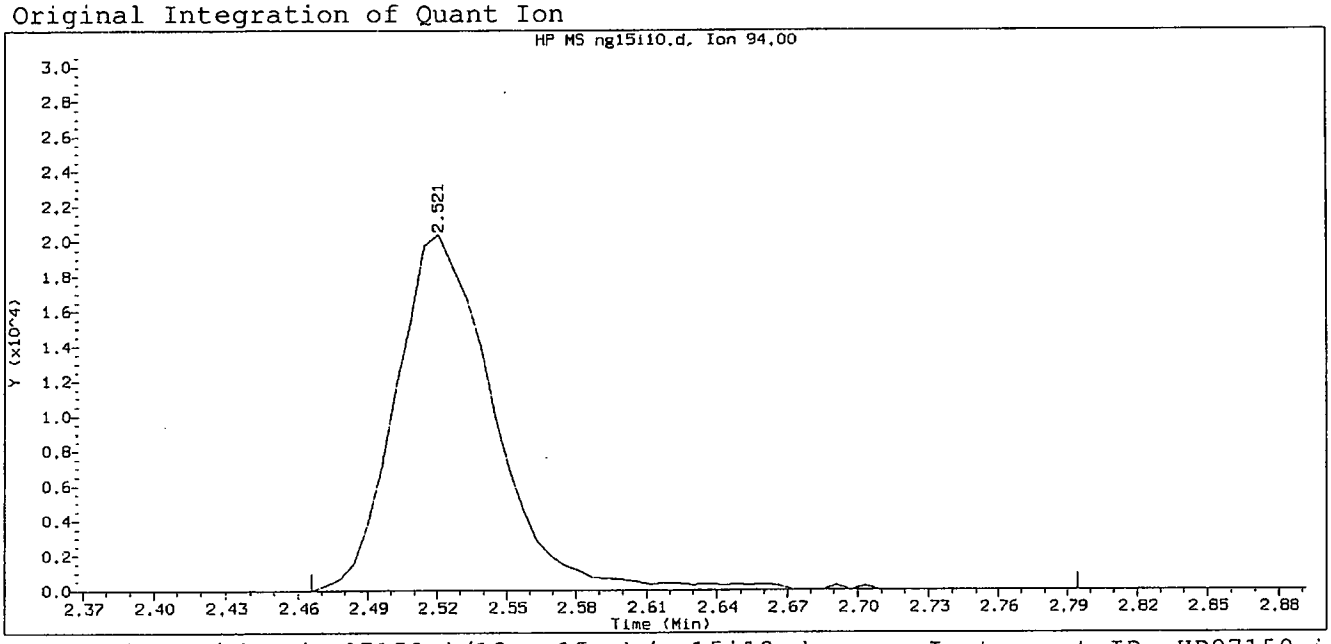
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 685 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 5		
Compound Name	: Bromomethane		
Scan Number	: 153		
Retention Time (minutes)	: 2.521		
Quant Ion	: 94.00		
Area	: 60212		
On-column Amount (ng)	: 11.4327		
Integration start scan	: 143	Integration stop scan:	197
Y at integration start	: 0	Y at integration end:	0

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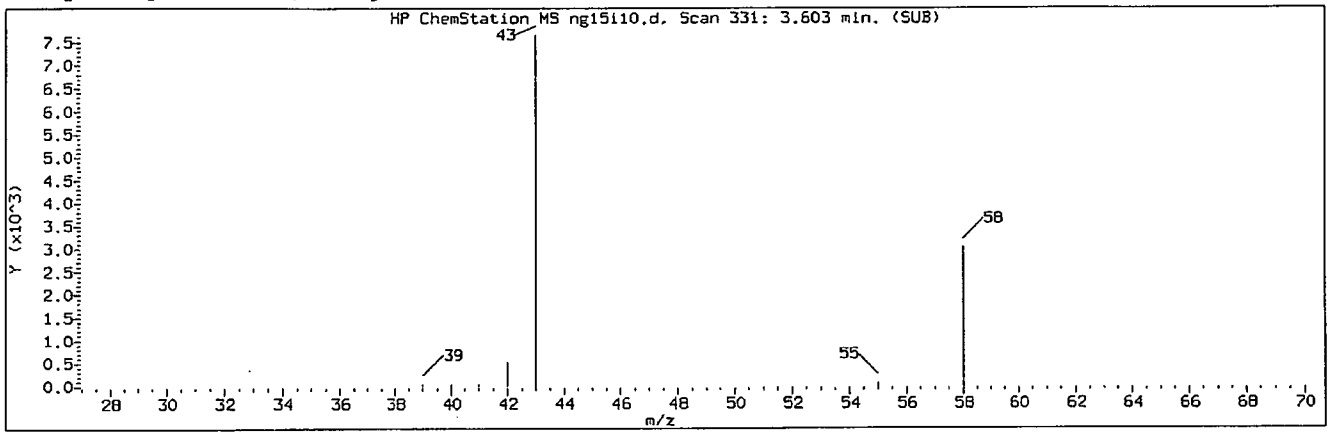
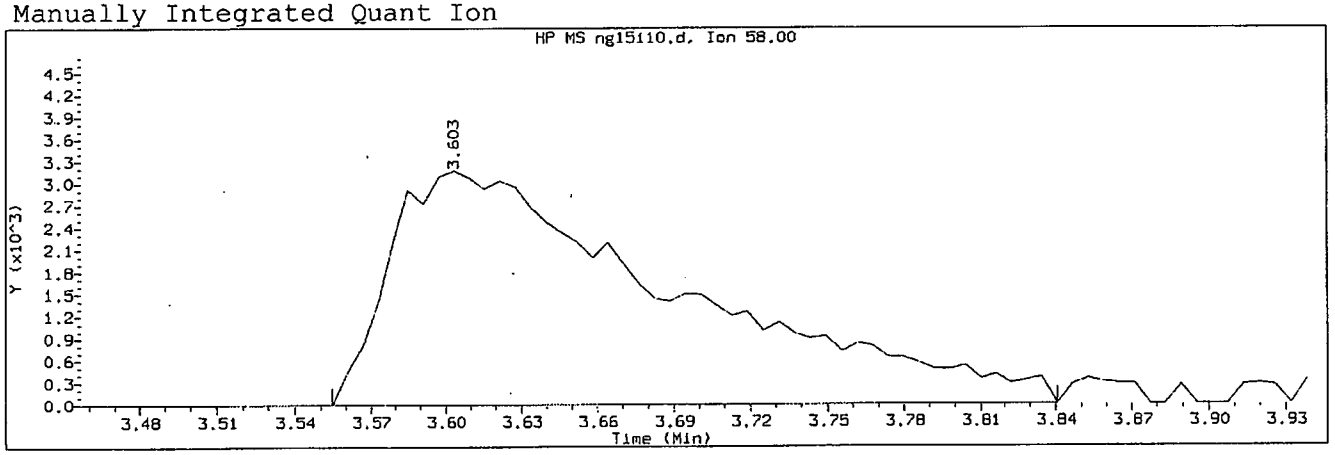
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

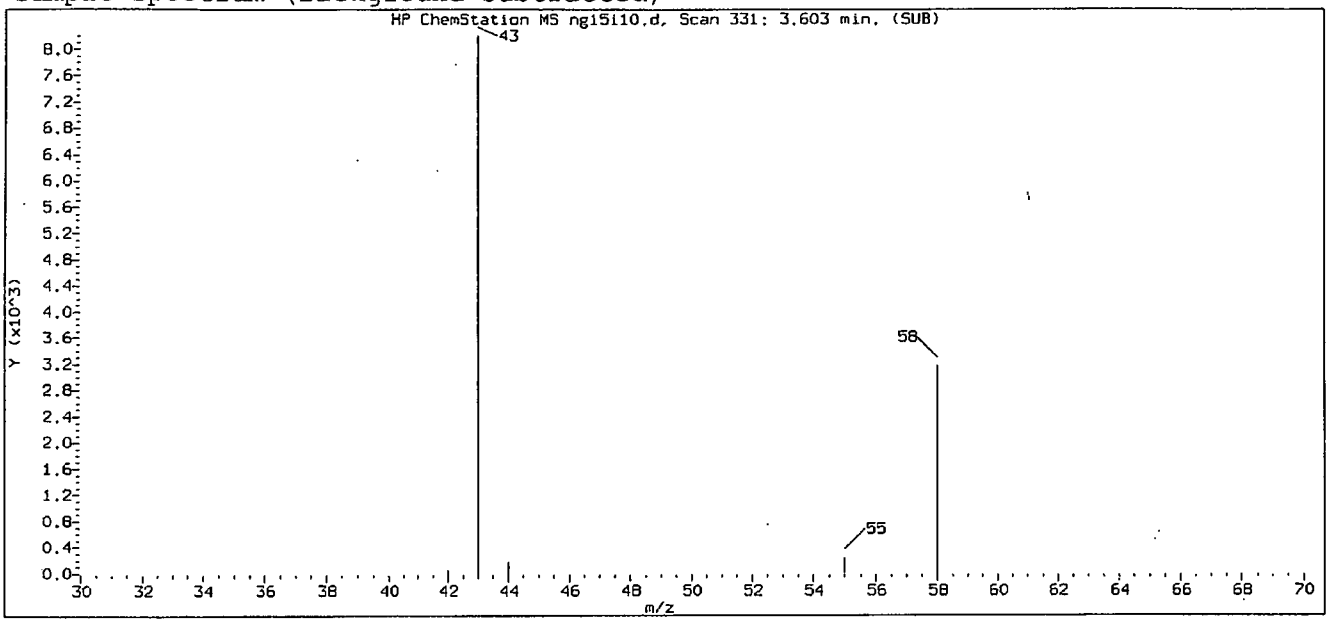
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 331		
Retention Time (minutes)	: 3.603		
Quant Ion	: 58.00		
Area (flag)	: 24906M		
On-Column Amount (ng)	: 20.2189		
Integration start scan	: 322	Integration stop scan:	369
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

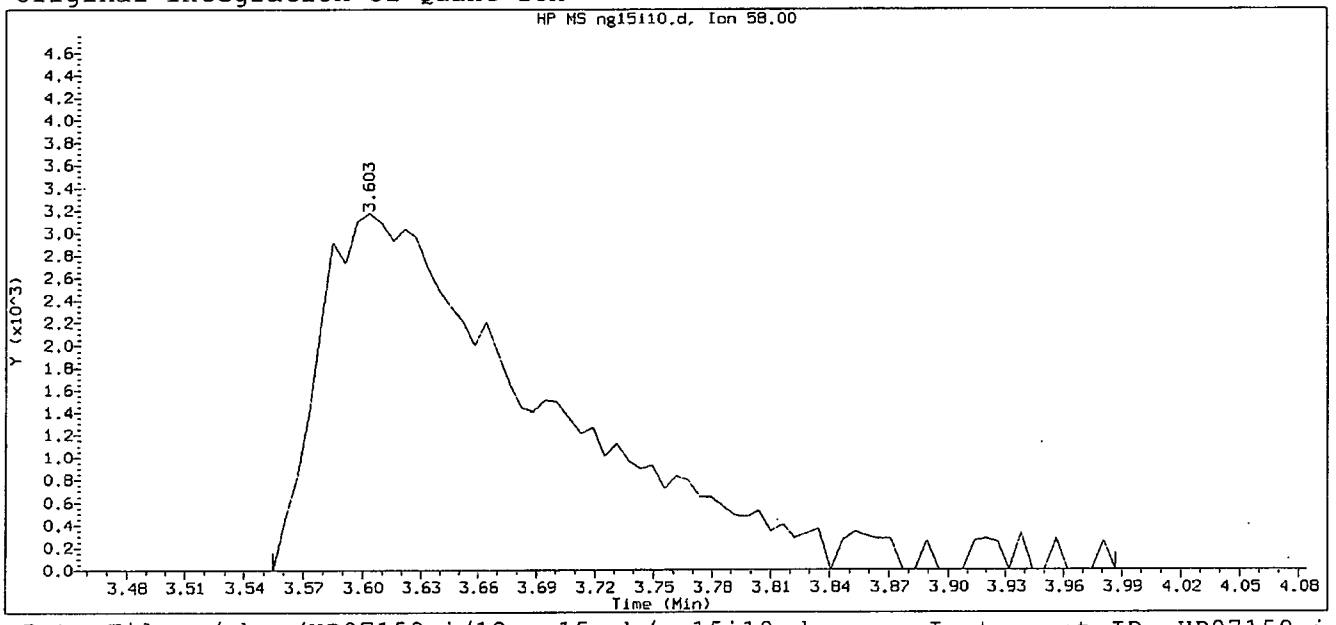
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 331		
Retention Time (minutes)	: 3.603		
Quant Ion	: 58.00		
Area	: 26130		
On-column Amount (ng)	: 21.0383		
Integration start scan	: 322	Integration stop scan:	393
Y at integration start	: 0	Y at integration end:	0

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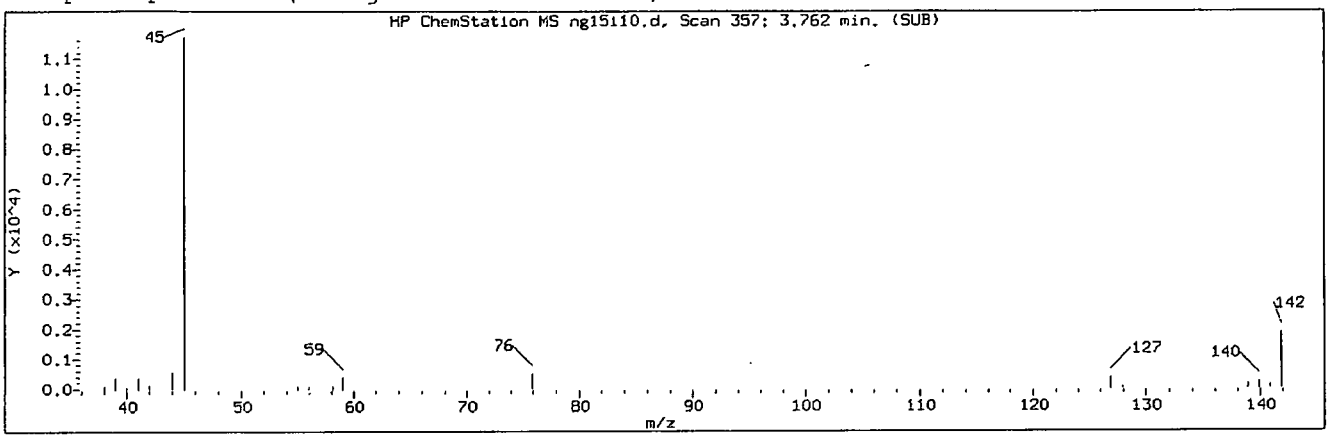
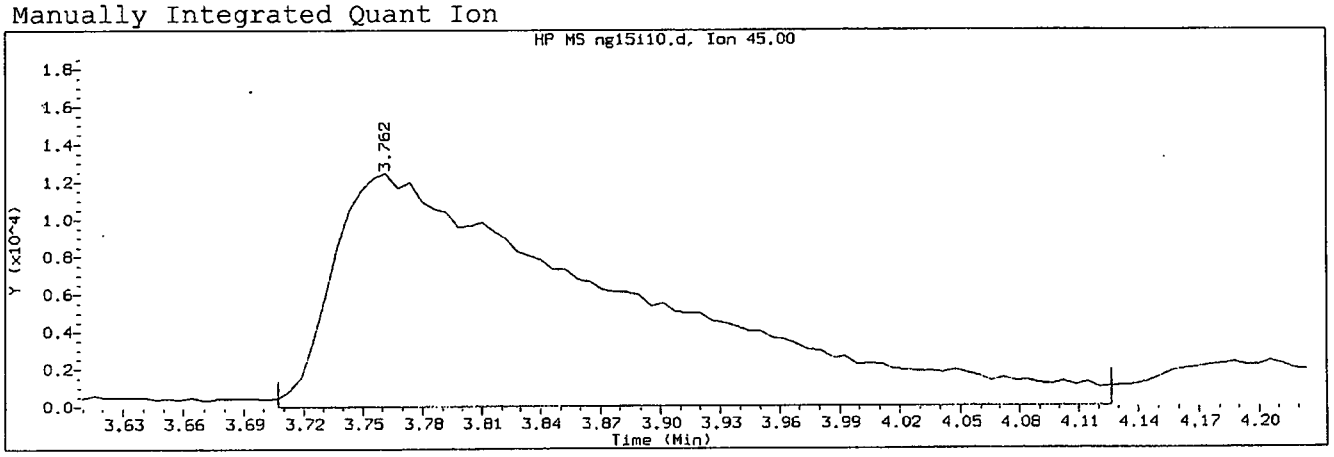
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

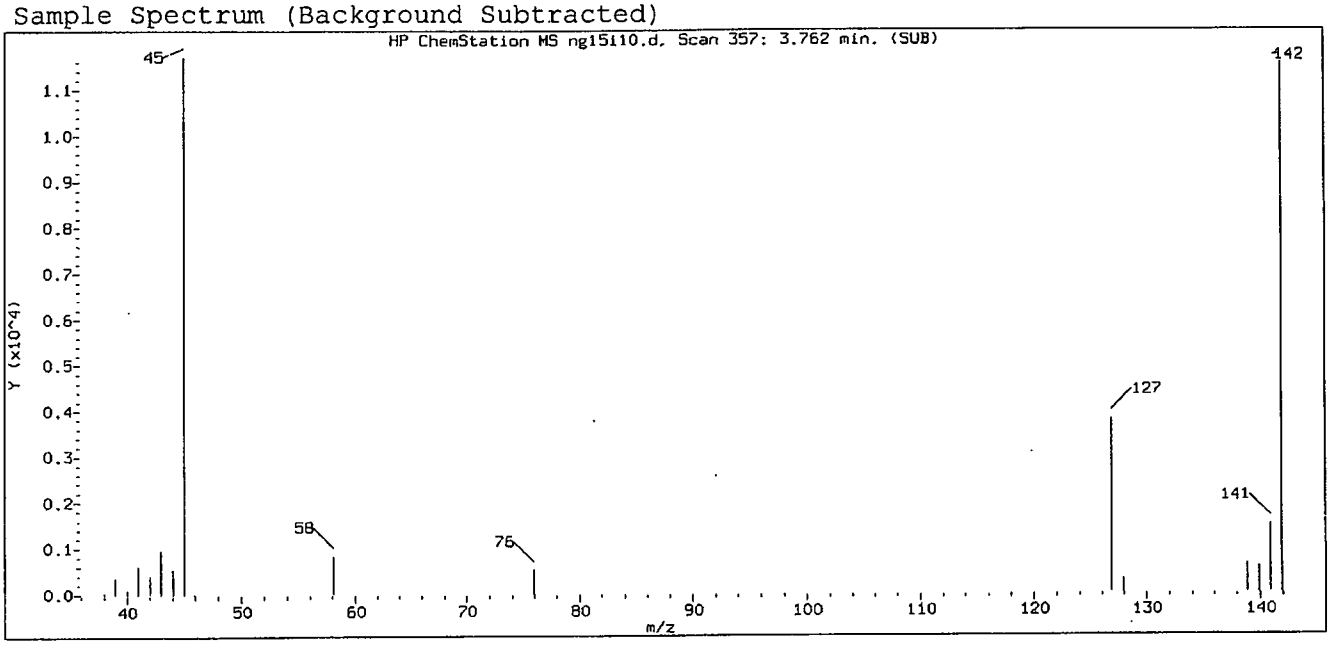
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 357		
Retention Time (minutes)	: 3.762		
Quant Ion	: 45.00		
Area (flag)	: 127858M		
On-Column Amount (ng)	: 117.8532		
Integration start scan	: 347	Integration stop scan:	416
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

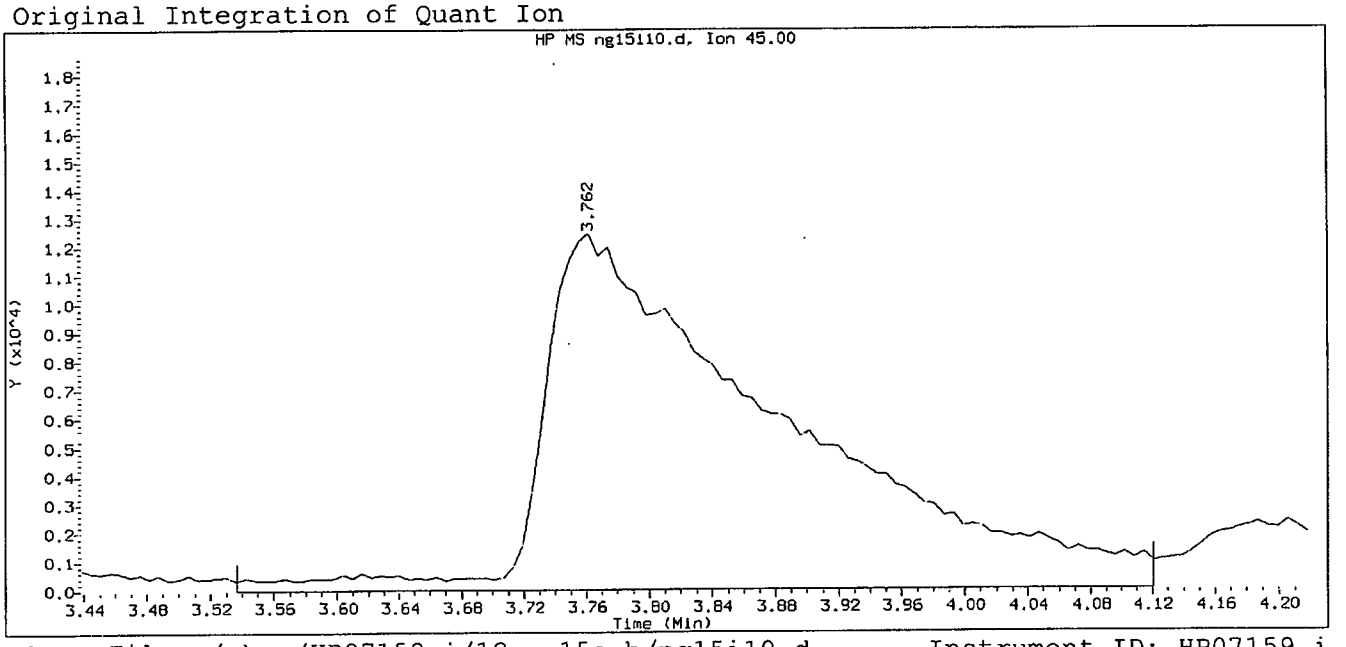
Analyst responsible for change: Digitally signed by Sarah A. Gullett on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

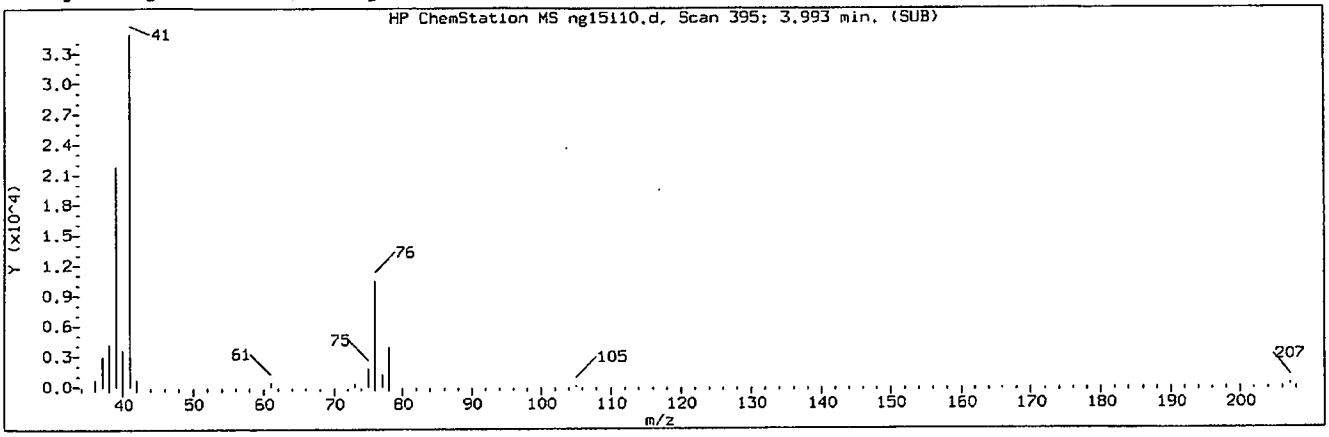
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

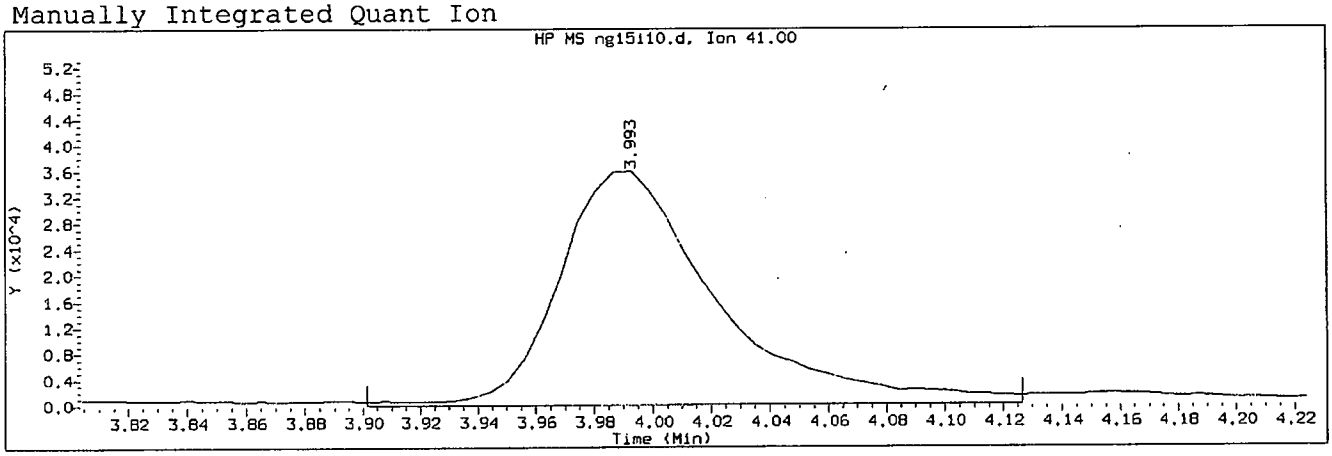
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 357		
Retention Time (minutes)	: 3.762		
Quant Ion	: 45.00		
Area	: 131542		
On-column Amount (ng)	: 120.5660		
Integration start scan	: 319	Integration stop scan:	415
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

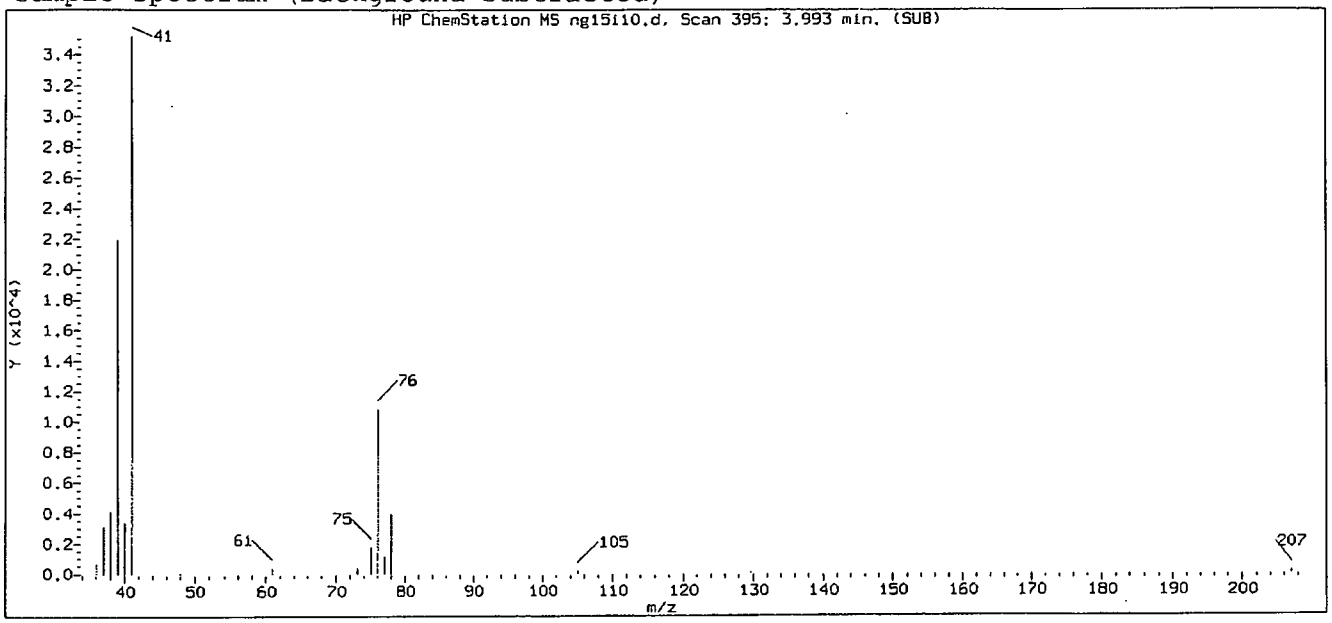
Compound Number : 23
Compound Name : Allyl Chloride
Scan Number : 395
Retention Time (minutes): 3.993
Quant Ion : 41.00
Area (flag) : 135976M
On-Column Amount (ng) : 10.7837
Integration start scan : 379 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

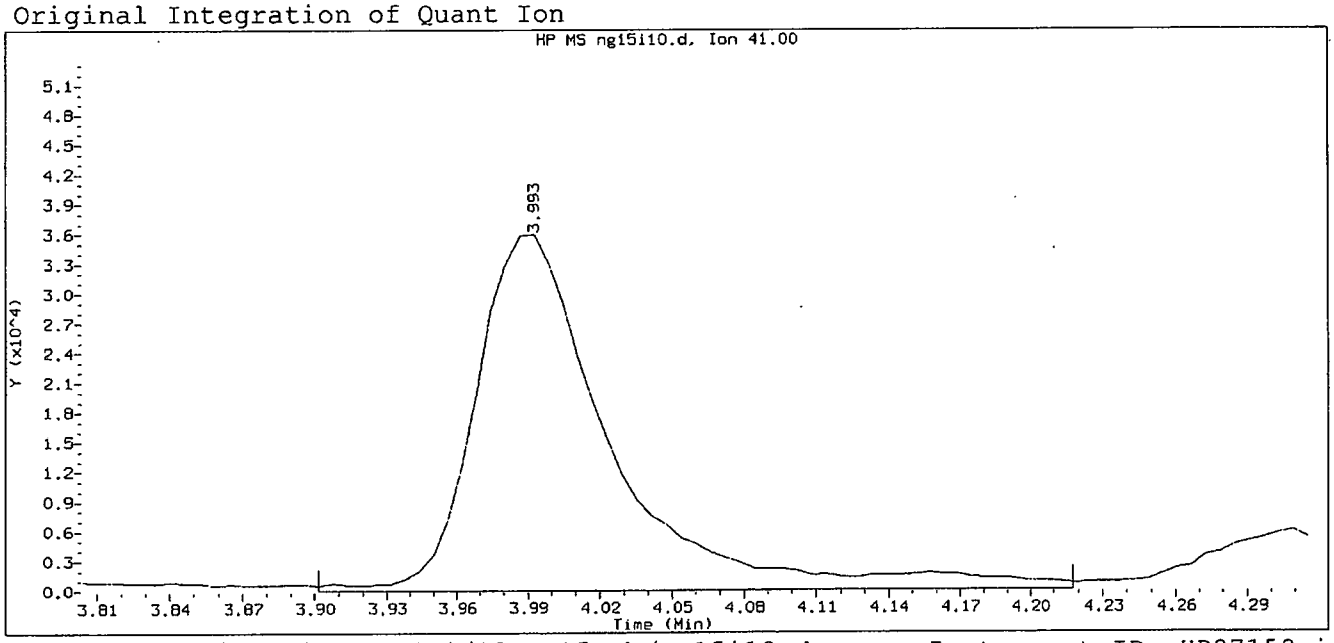
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

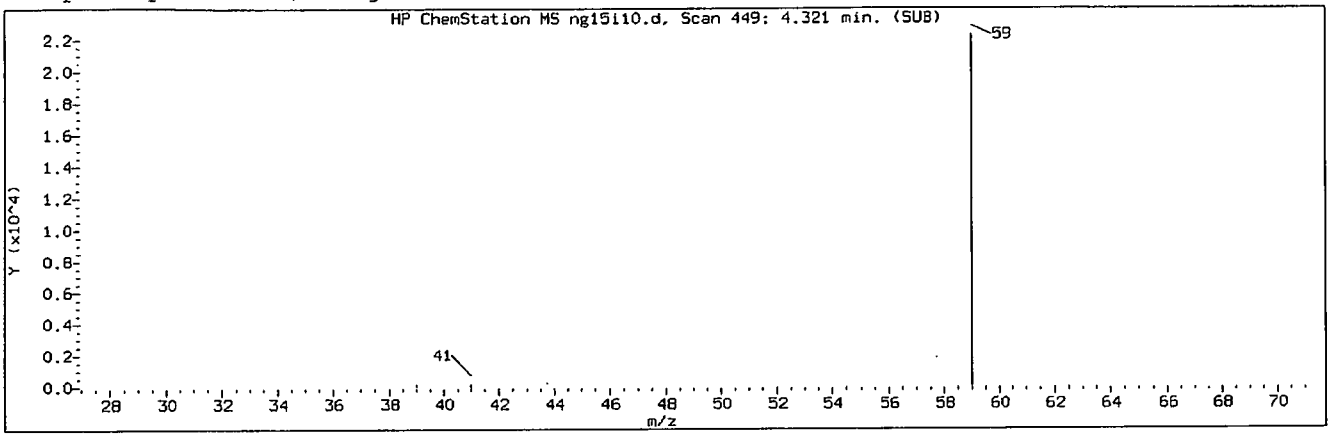
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

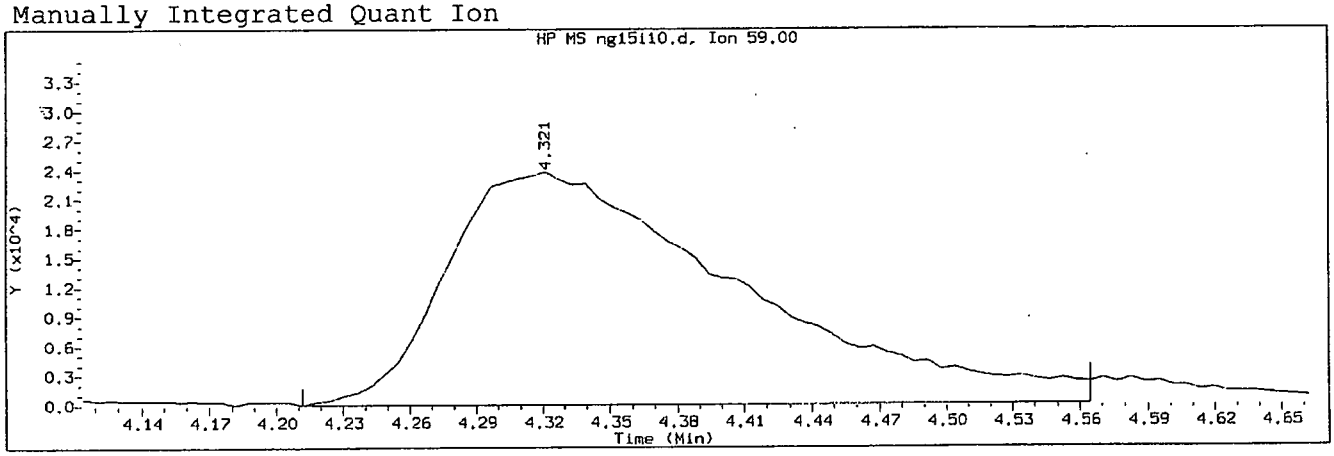
Compound Number	: 23		
Compound Name	: Allyl Chloride		
Scan Number	: 395		
Retention Time (minutes)	: 3.993		
Quant Ion	: 41.00		
Area	: 142771		
On-column Amount (ng)	: 11.2217		
Integration start scan	: 379	Integration stop scan:	431
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

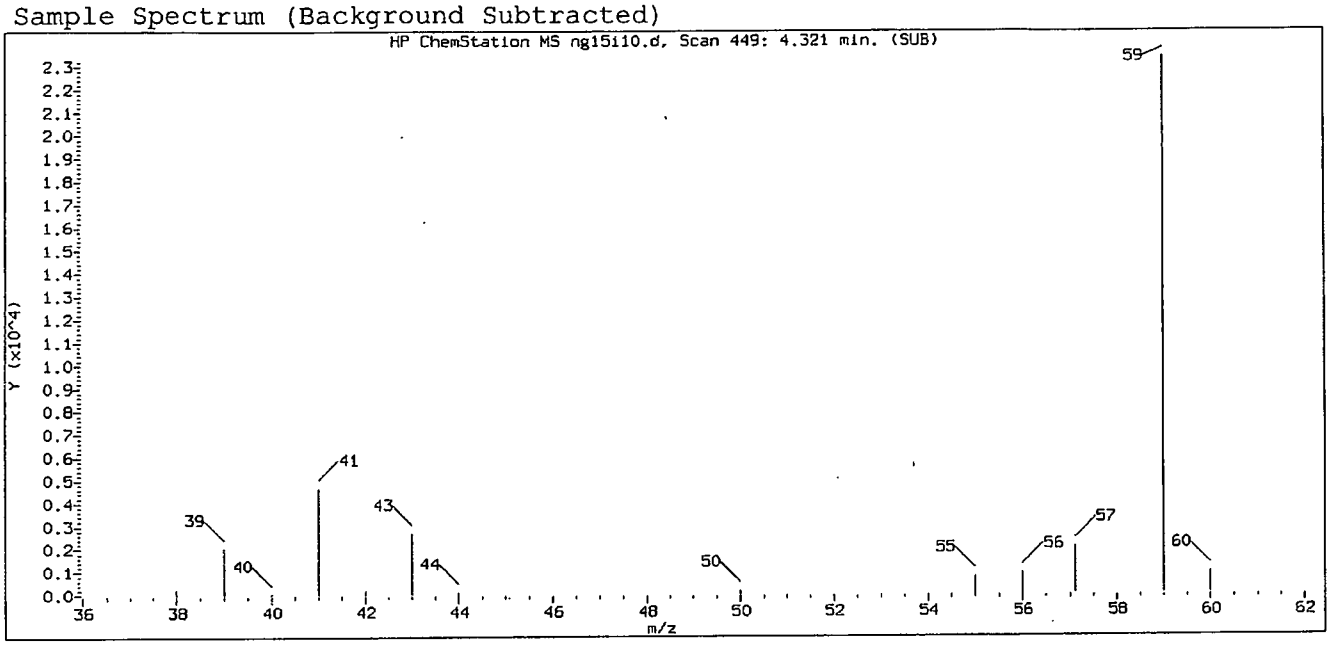
Compound Number	: 27		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 449		
Retention Time (minutes)	: 4.321		
Quant Ion	: 59.00		
Area (flag)	: 217612M		
On-Column Amount (ng)	: 120.6962		
Integration start scan	: 430	Integration stop scan:	488
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

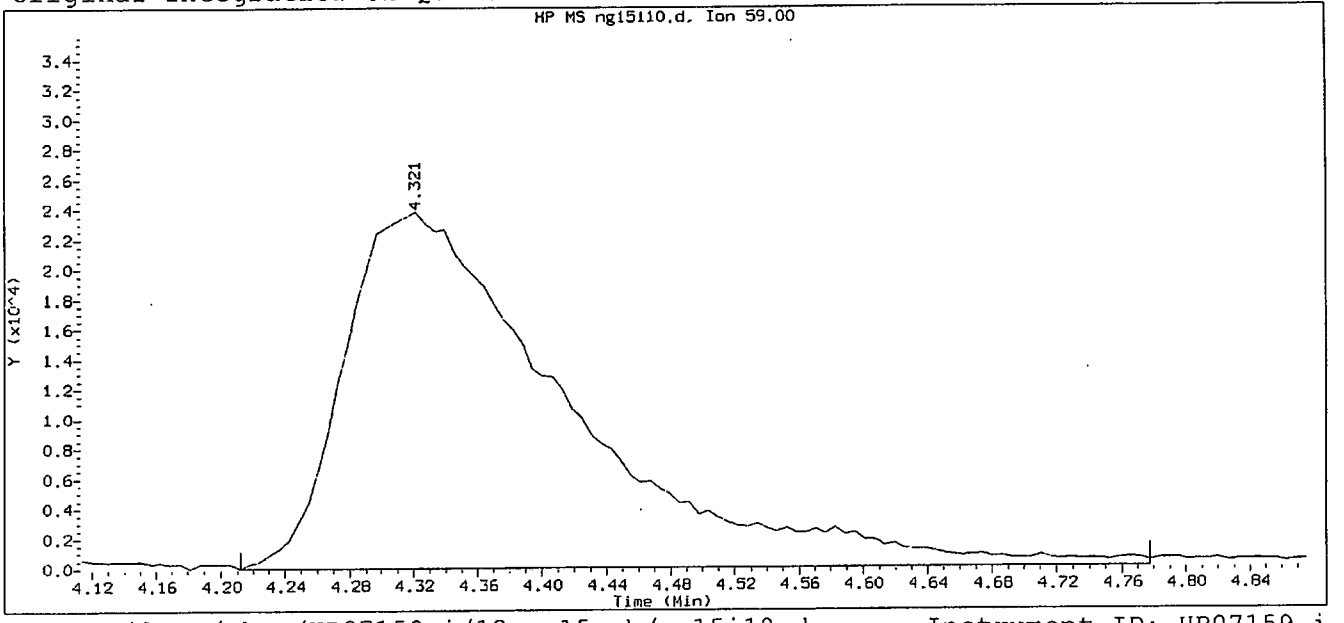
Analyst responsible for change: Digitally signed by Sarah A. Gullett on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 685 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

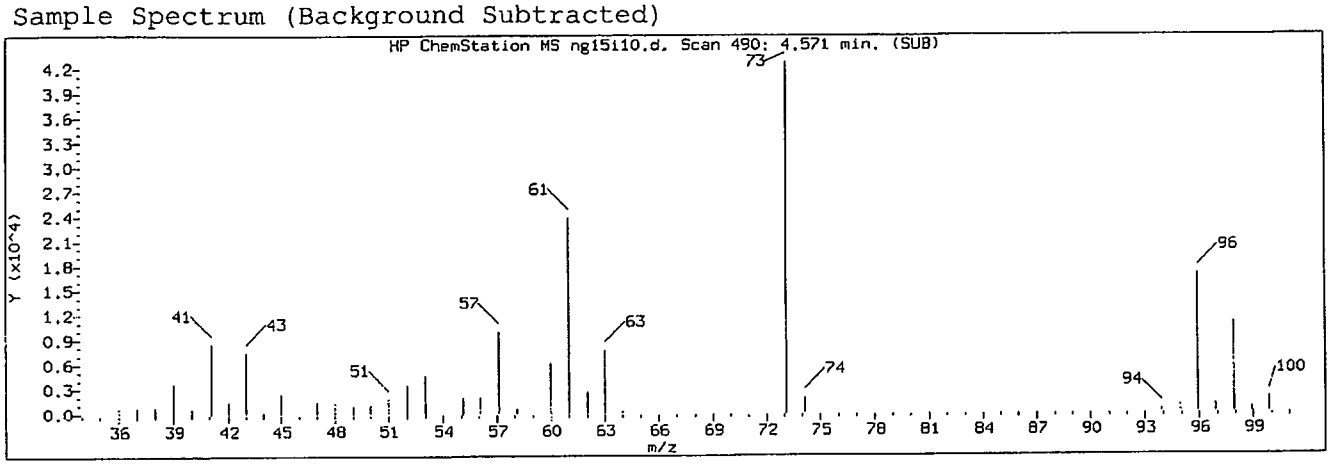
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

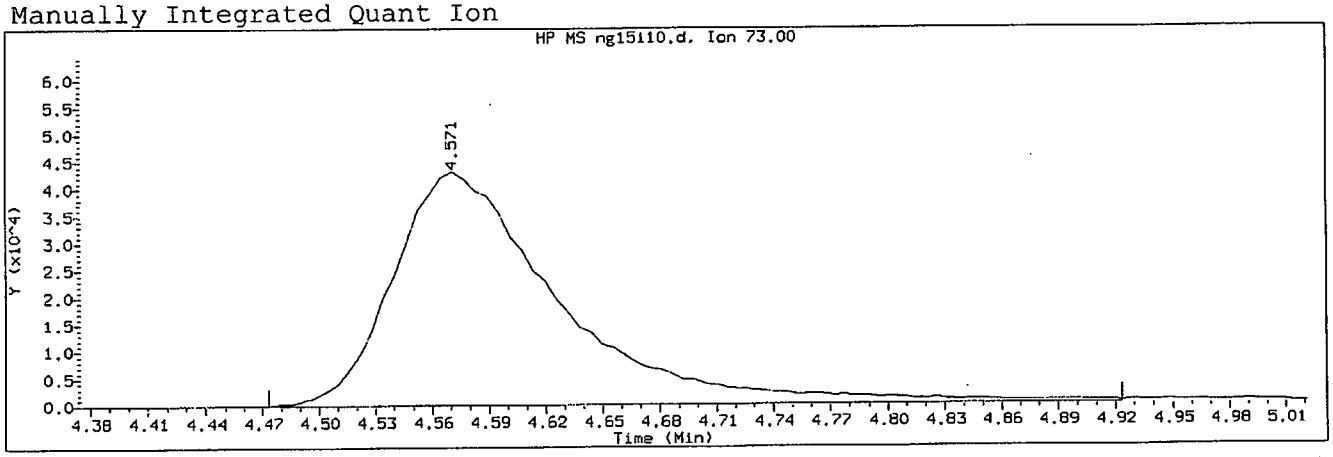
Compound Number	: 27		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 449		
Retention Time (minutes)	: 4.321		
Quant Ion	: 59.00		
Area	: 231101		
On-column Amount (ng)	: 126.8219		
Integration start scan	: 430	Integration stop scan:	523
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

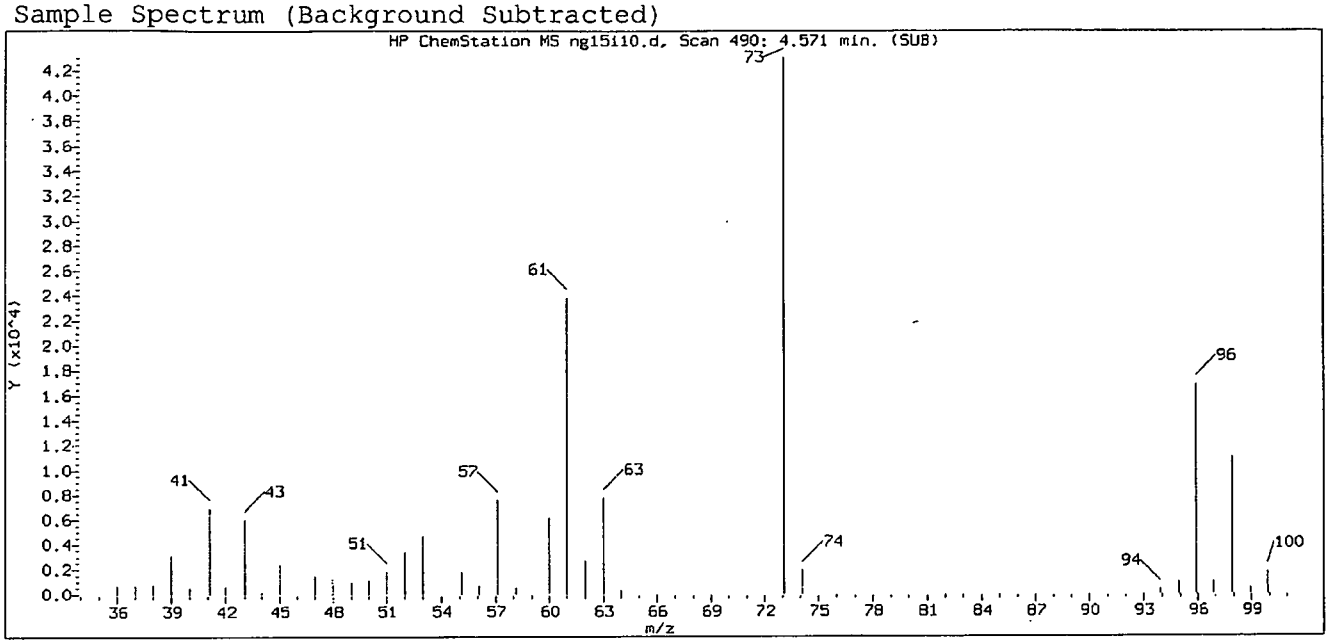
Compound Number	: 30		
Compound Name	: Methyl Tertiary Butyl Ether		
Scan Number	: 490		
Retention Time (minutes)	: 4.571		
Quant Ion	: 73.00		
Area (flag)	: 262634M		
On-Column Amount (ng)	: 10.8798		
Integration start scan	: 473	Integration stop scan:	547
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

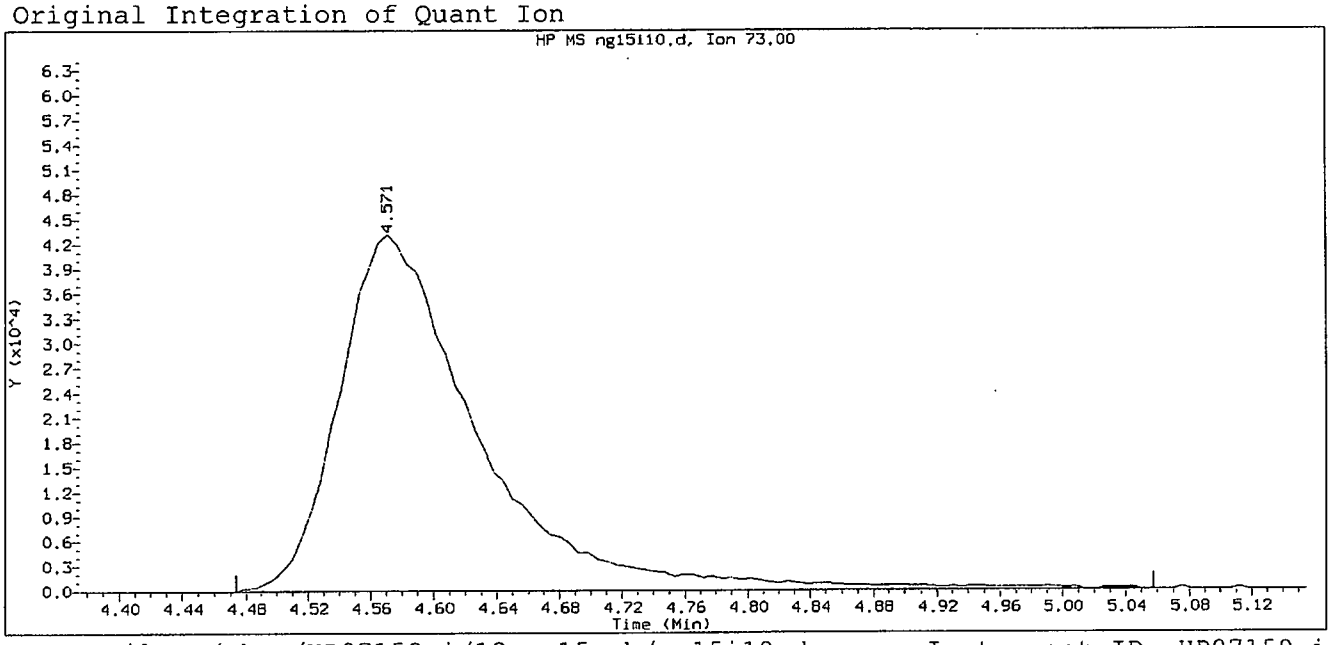
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

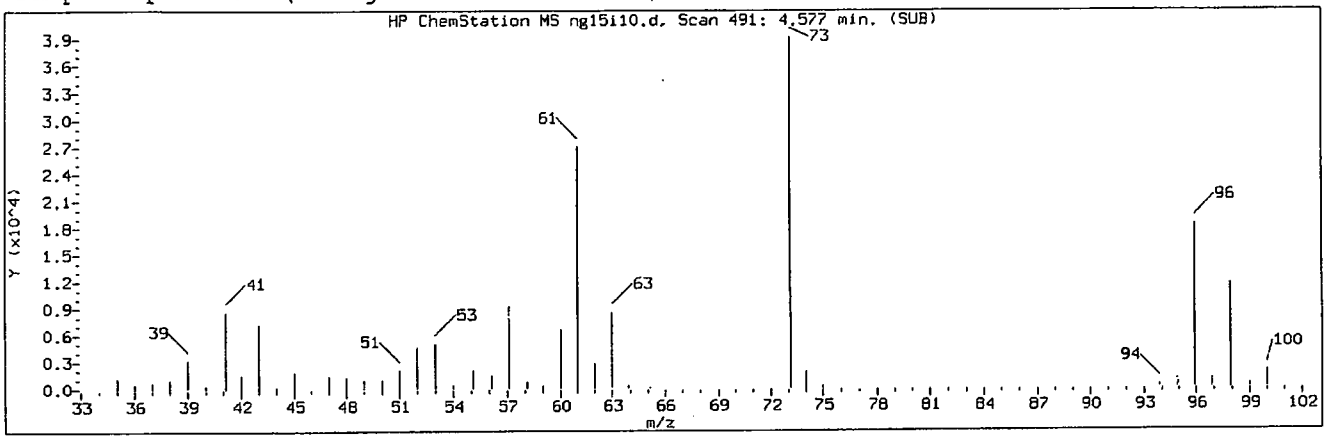
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

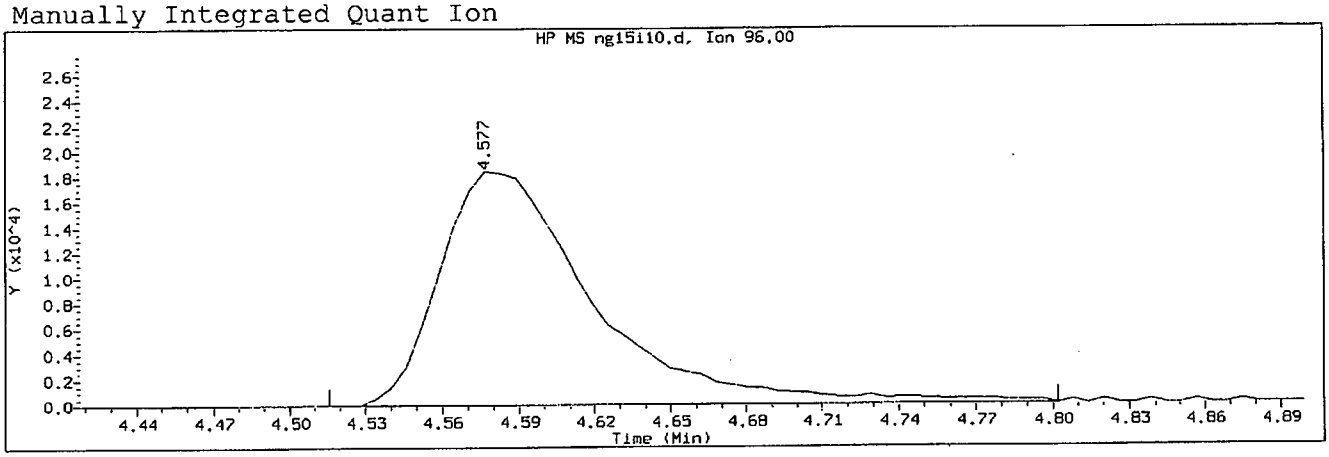
Compound Number	: 30		
Compound Name	: Methyl Tertiary Butyl Ether		
Scan Number	: 490		
Retention Time (minutes)	: 4.571		
Quant Ion	: 73.00		
Area	: 265048		
On-column Amount (ng)	: 10.9642		
Integration start scan	: 473	Integration stop scan:	569
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Saran A. Cuill on 08/15/2012 at 19:07:
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

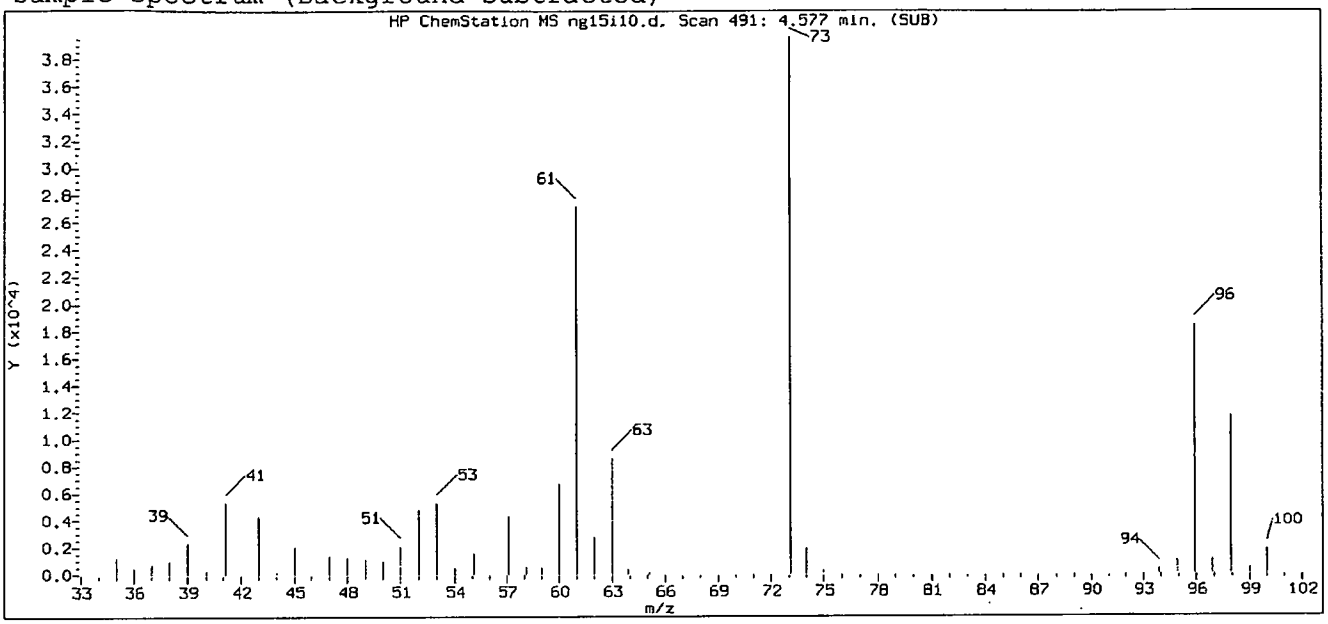
Compound Number : 29
Compound Name : trans-1,2-Dichloroethene
Scan Number : 491
Retention Time (minutes): 4.577
Quant Ion : 96.00
Area (flag) : 76940M
On-Column Amount (ng) : 11.1874
Integration start scan : 480 Integration stop scan: 527
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

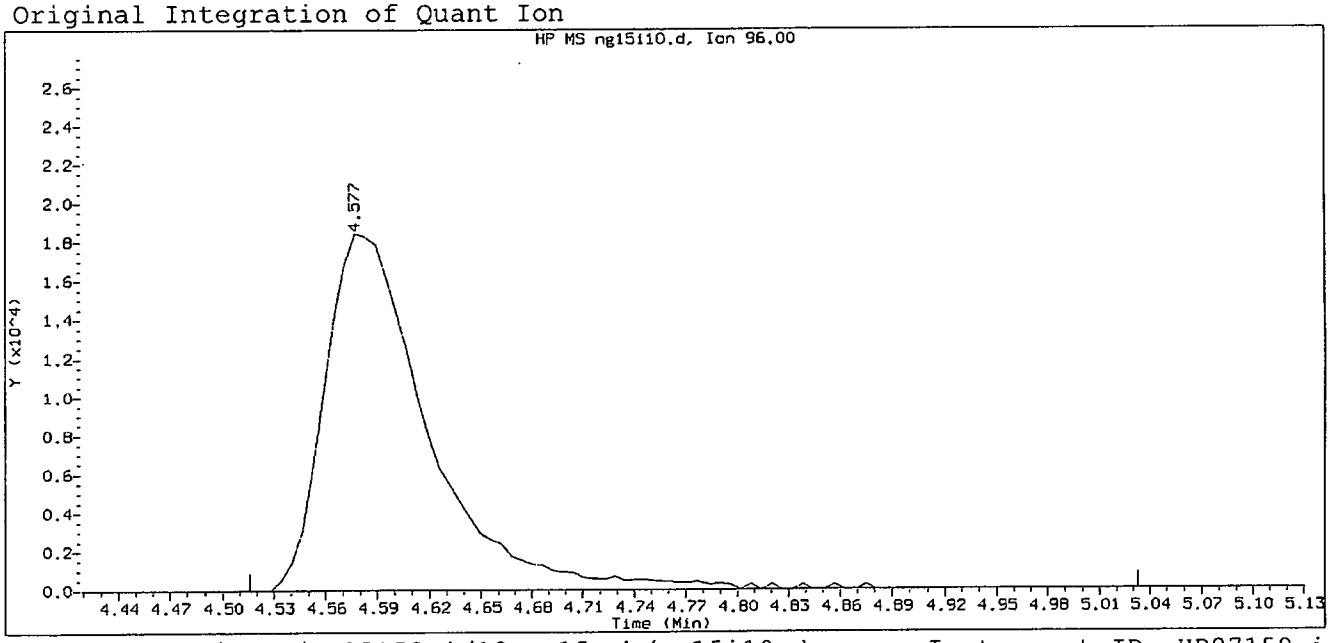
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

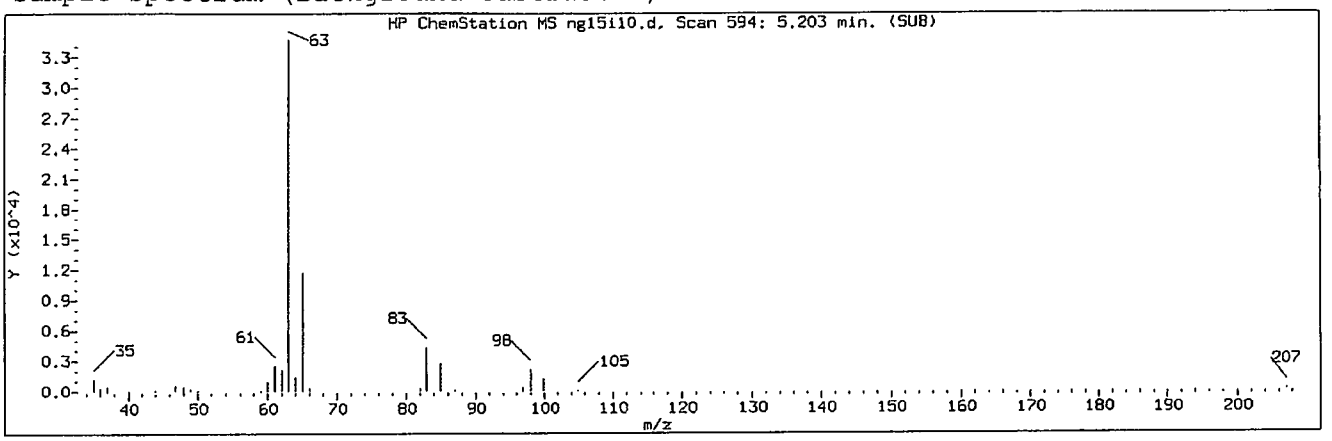
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

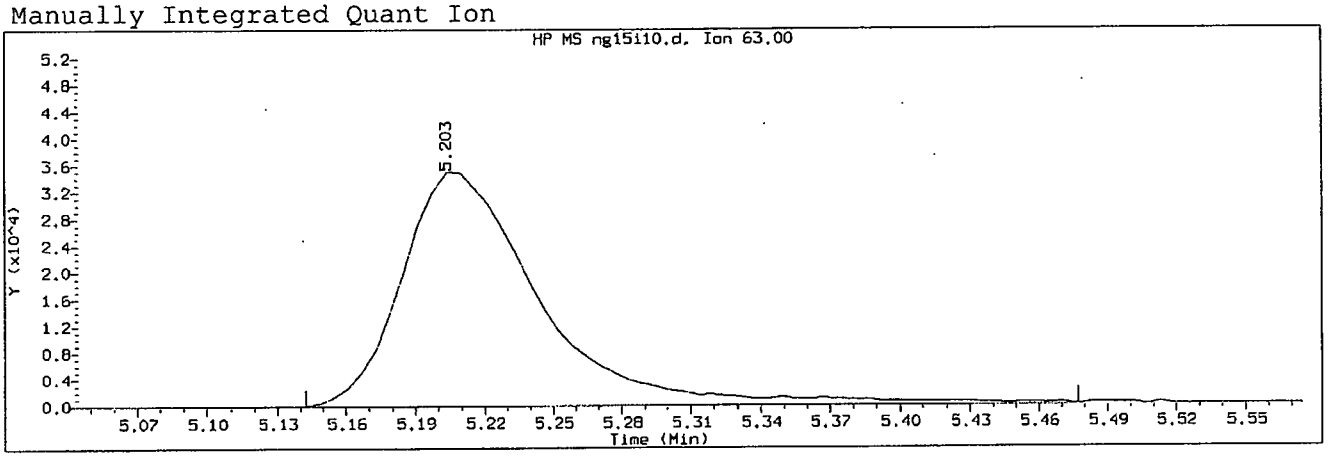
Compound Number	: 29		
Compound Name	: trans-1,2-Dichloroethene		
Scan Number	: 491		
Retention Time (minutes)	: 4.577		
Quant Ion	: 96.00		
Area	: 77427		
On-column Amount (ng)	: 11.2469		
Integration start scan	: 480	Integration stop scan:	565
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07:
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

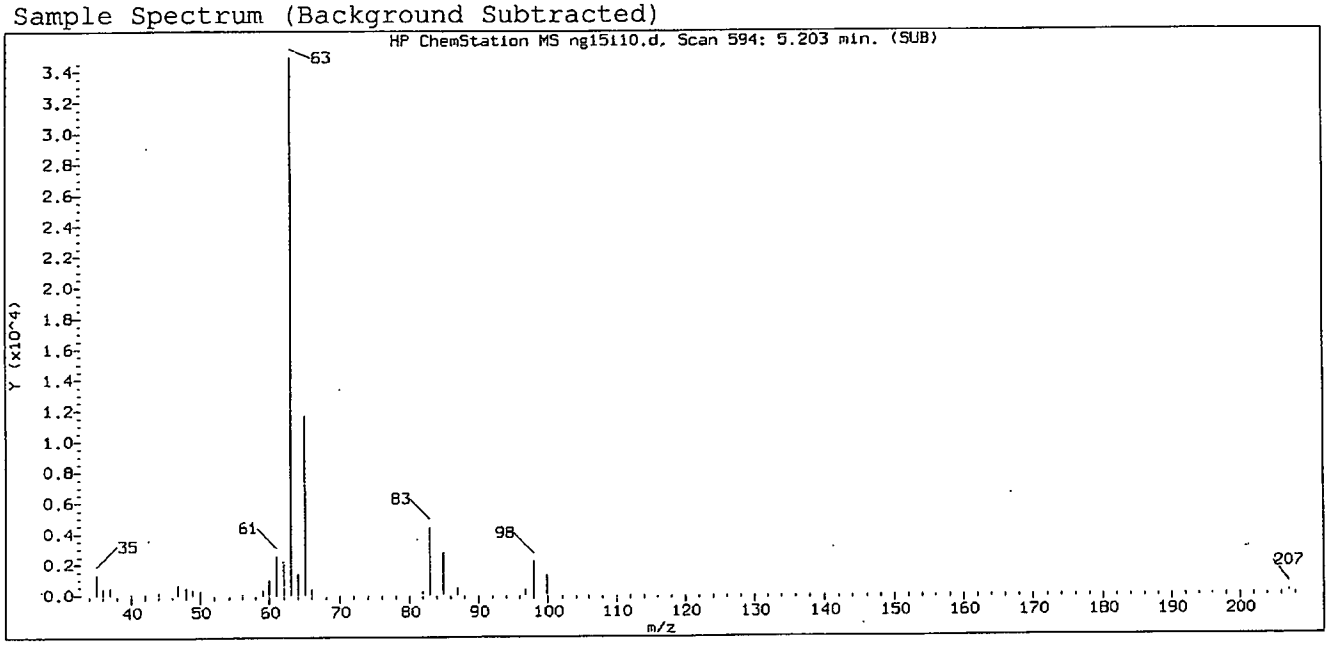
Compound Number	: 36		
Compound Name	: 1,1-Dichloroethane		
Scan Number	: 594		
Retention Time (minutes)	: 5.203		
Quant Ion	: 63.00		
Area (flag)	: 146334M		
On-Column Amount (ng)	: 11.1510		
Integration start scan	: 583	Integration stop scan:	638
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

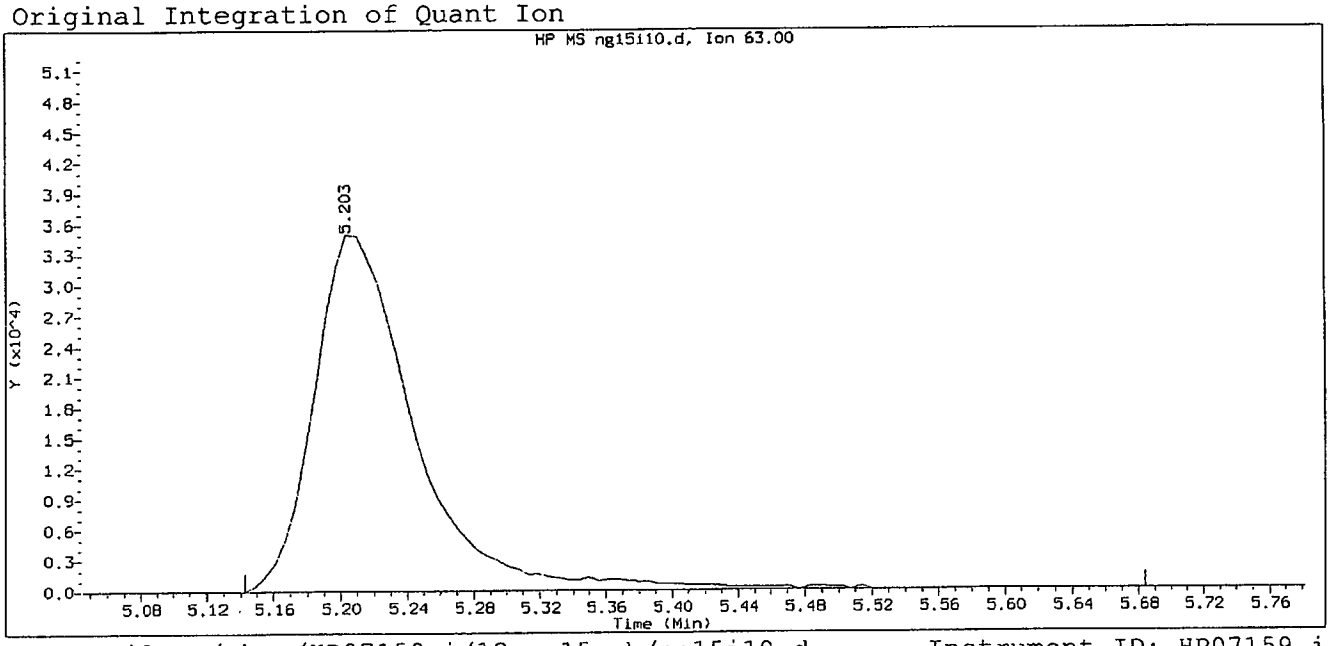
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:07
Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

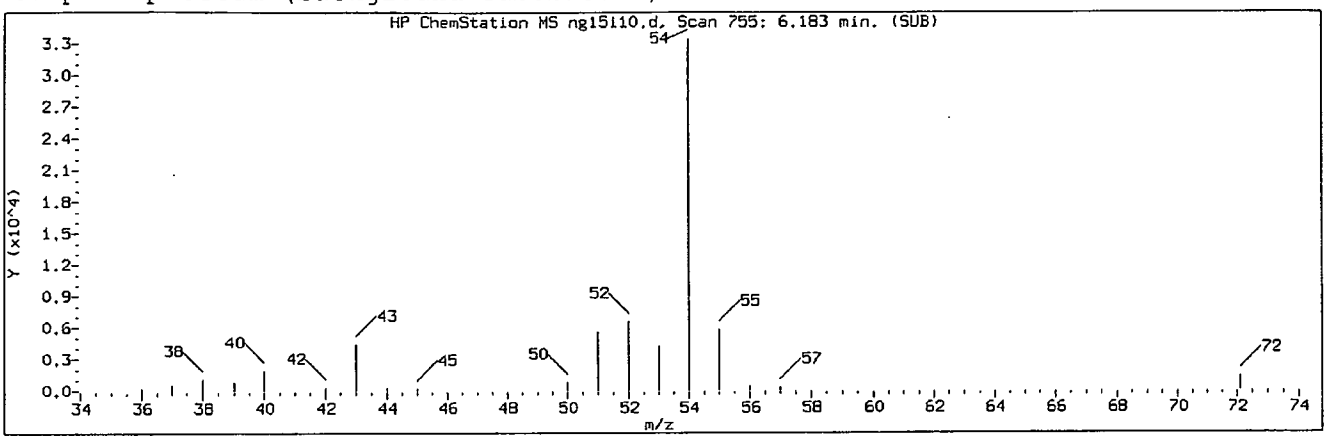
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

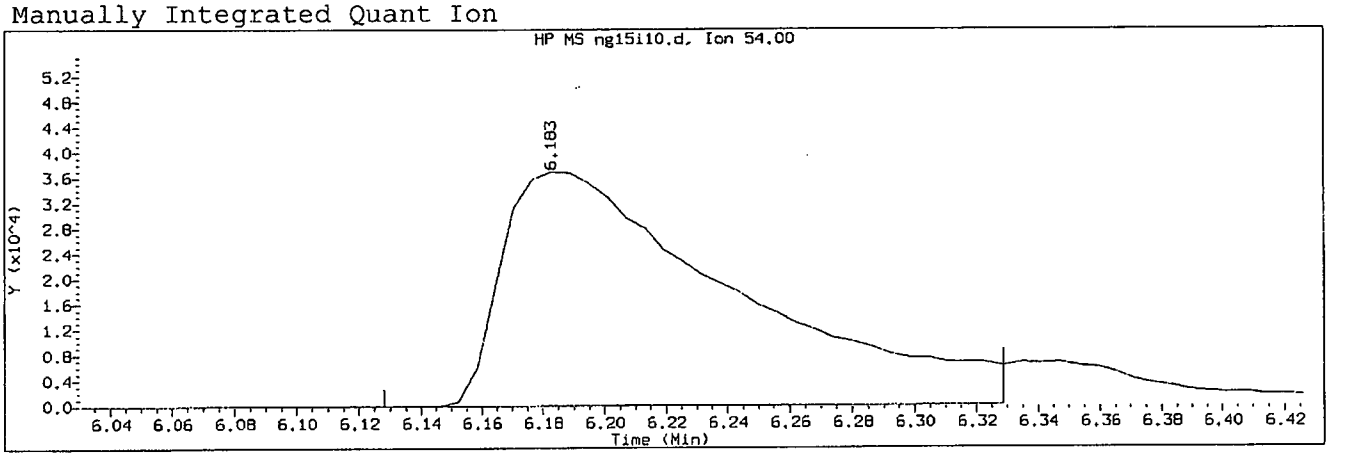
Compound Number	: 36		
Compound Name	: 1,1-Dichloroethane		
Scan Number	: 594		
Retention Time (minutes)	: 5.203		
Quant Ion	: 63.00		
Area	: 146874		
On-column Amount (ng)	: 11.1855		
Integration start scan	: 583	Integration stop scan:	672
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

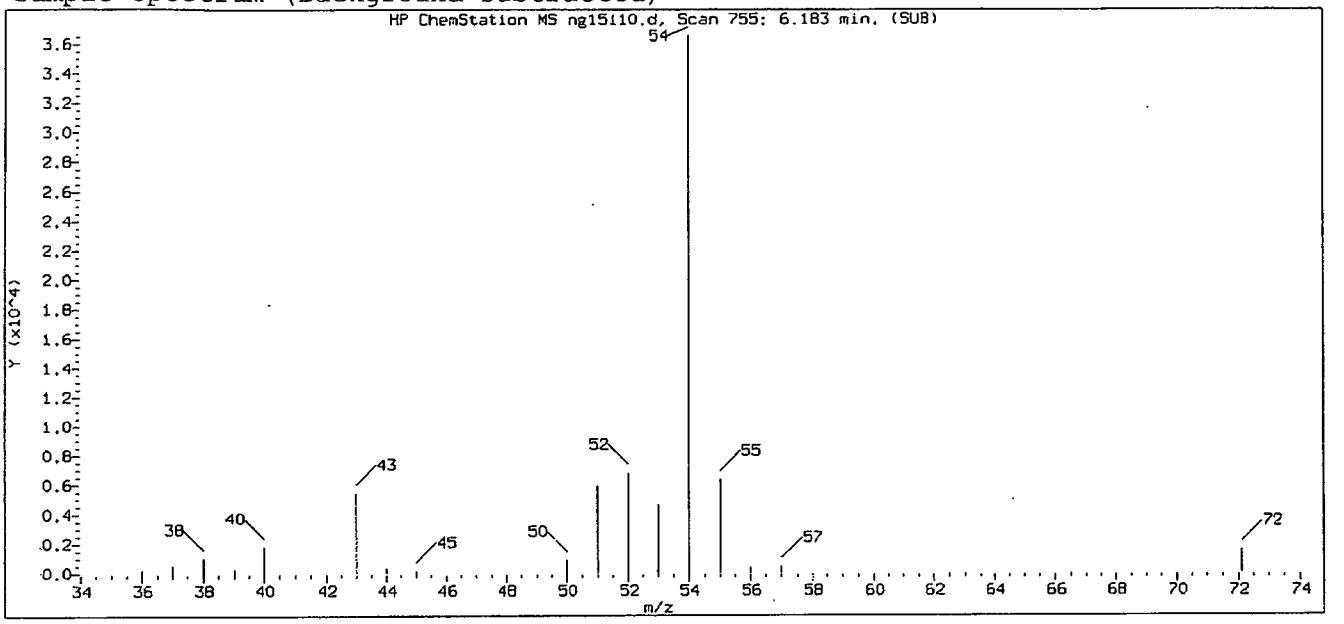
Compound Number	: 45		
Compound Name	: Propionitrile		
Scan Number	: 755		
Retention Time (minutes)	: 6.183		
Quant Ion	: 54.00		
Area (flag)	: 194448M		
On-Column Amount (ng)	: 102.0324		
Integration start scan	: 745	Integration stop scan:	778
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

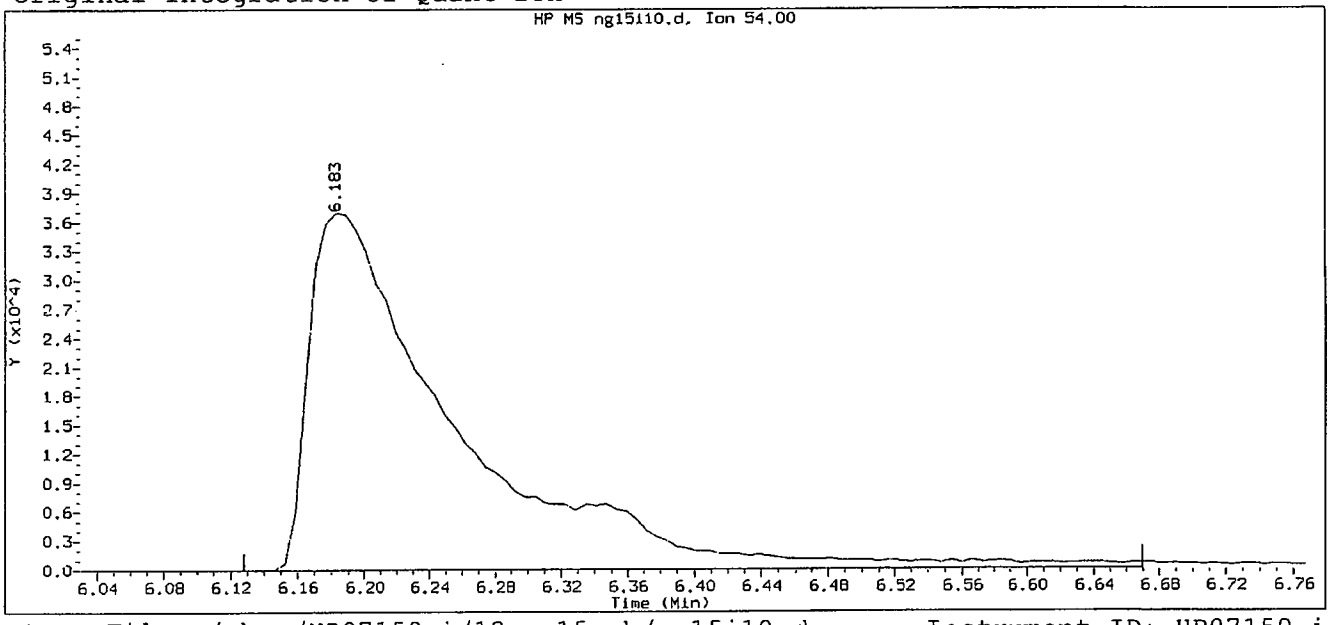
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07 Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

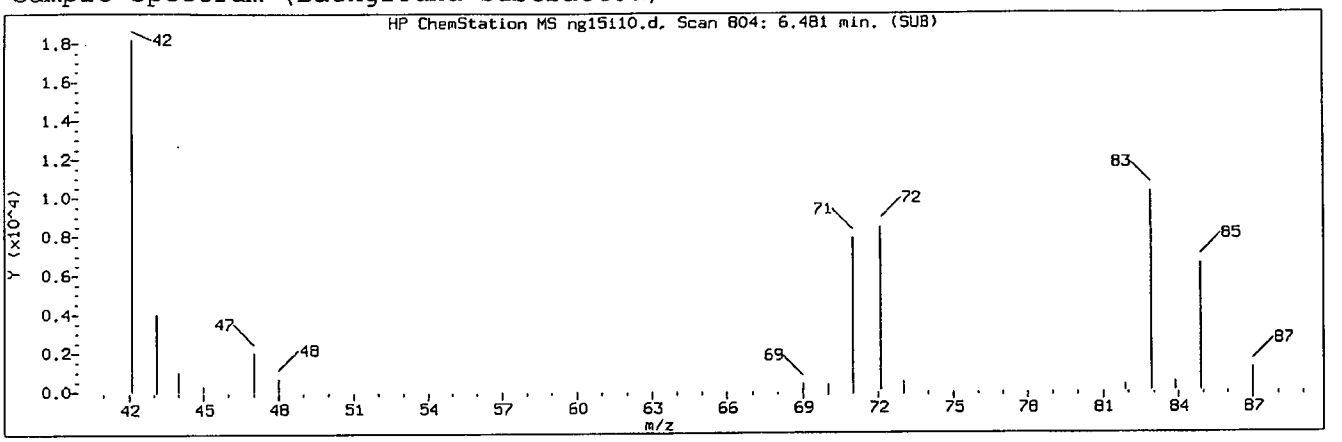
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

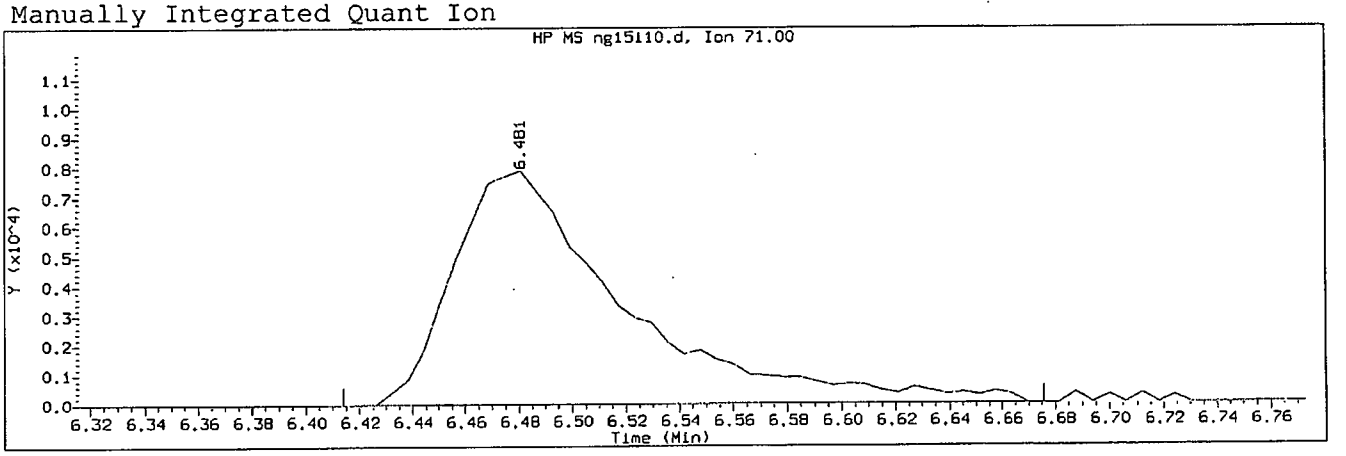
Compound Number	: 45		
Compound Name	: Propionitrile		
Scan Number	: 755		
Retention Time (minutes)	: 6.183		
Quant Ion	: 54.00		
Area	: 228297		
On-column Amount (ng)	: 116.3496		
Integration start scan	: 745	Integration stop scan:	834
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

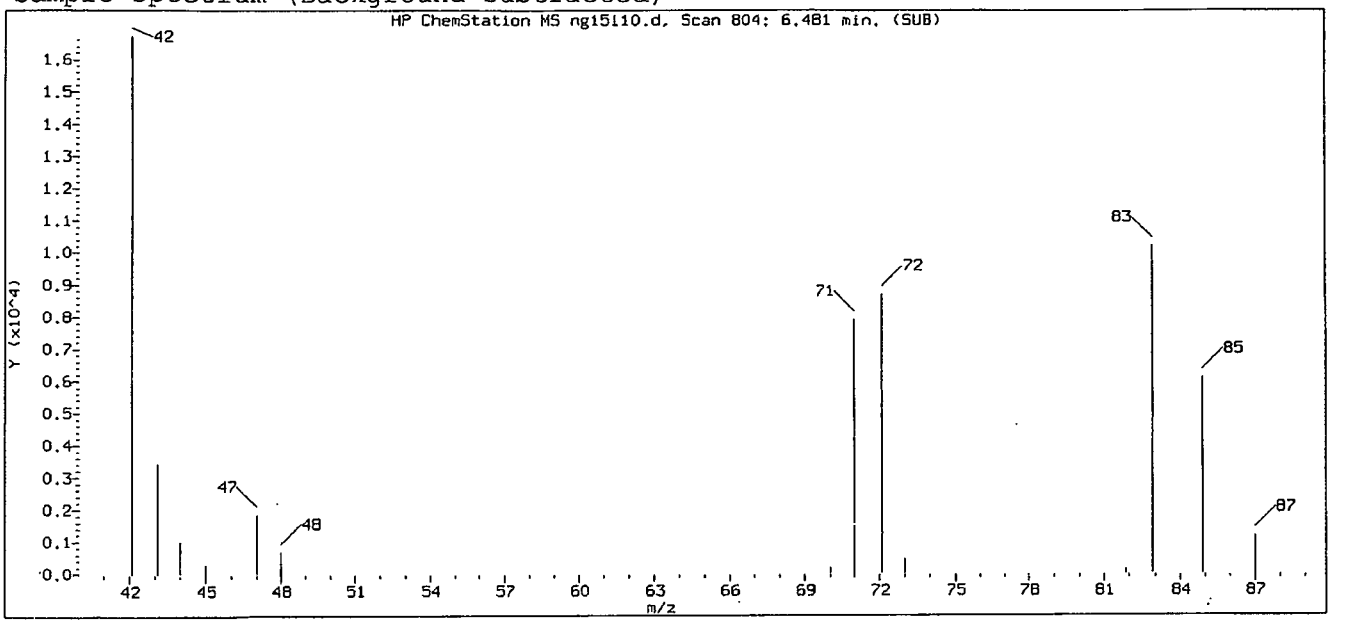
Compound Number	: 49		
Compound Name	: Tetrahydrofuran		
Scan Number	: 804		
Retention Time (minutes)	: 6.481		
Quant Ion	: 71.00		
Area (flag)	: 35049M		
On-Column Amount (ng)	: 19.9480		
Integration start scan	: 792	Integration stop scan:	835
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

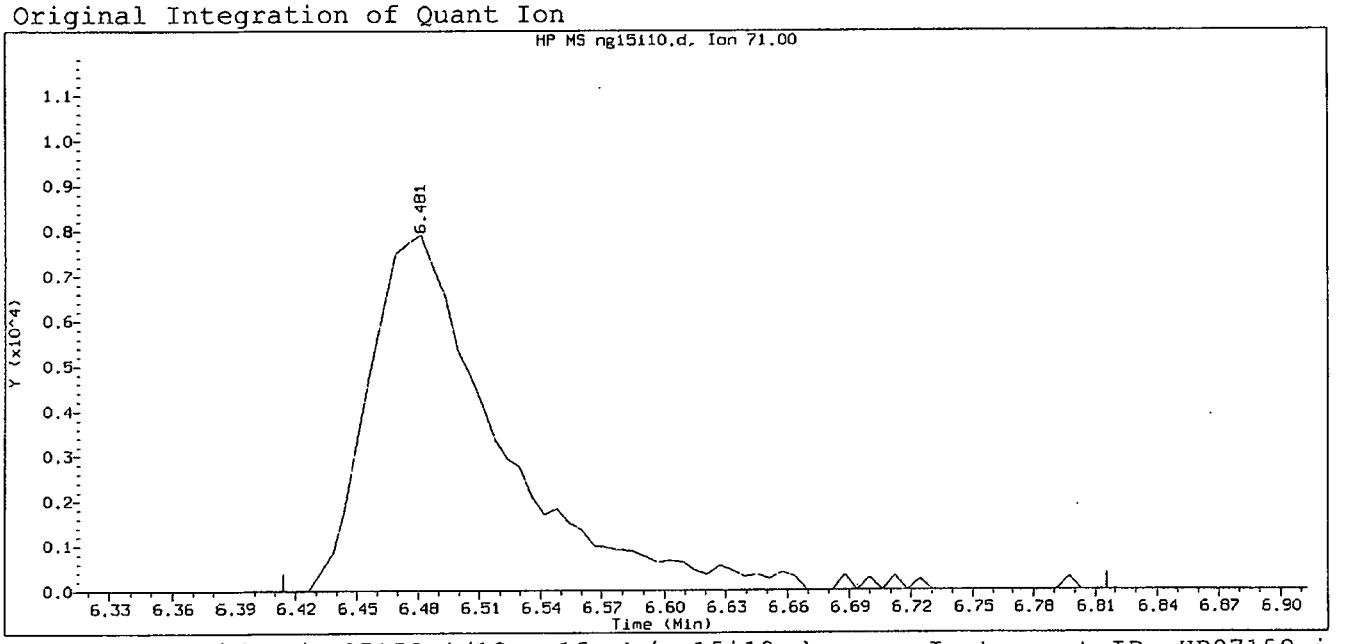
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

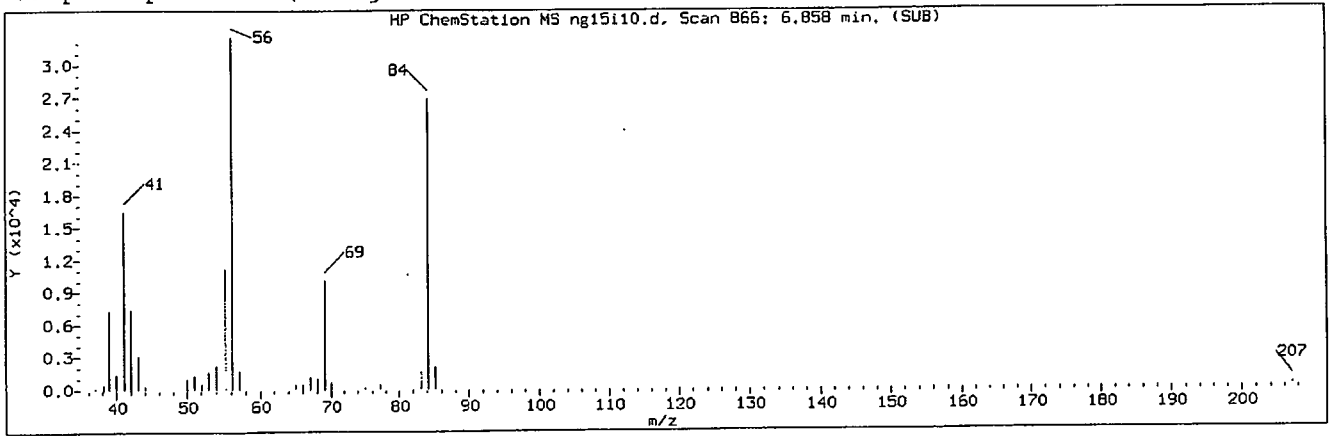
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

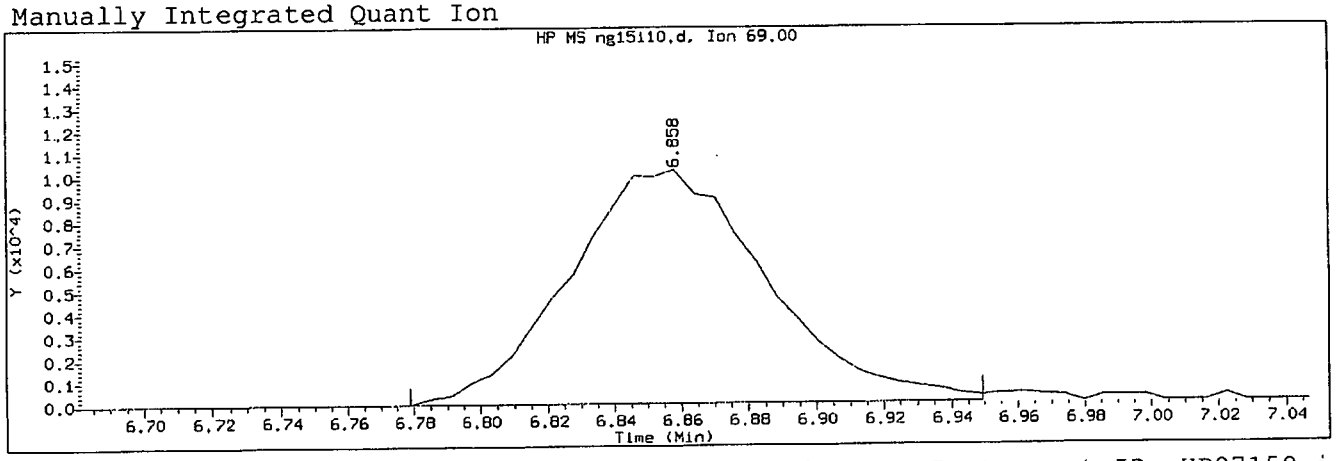
Compound Number : 49
Compound Name : Tetrahydrofuran
Scan Number : 804
Retention Time (minutes): 6.481
Quant Ion : 71.00
Area : 35601
On-column Amount (ng) : 20.2094
Integration start scan : 792 Integration stop scan: 858
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

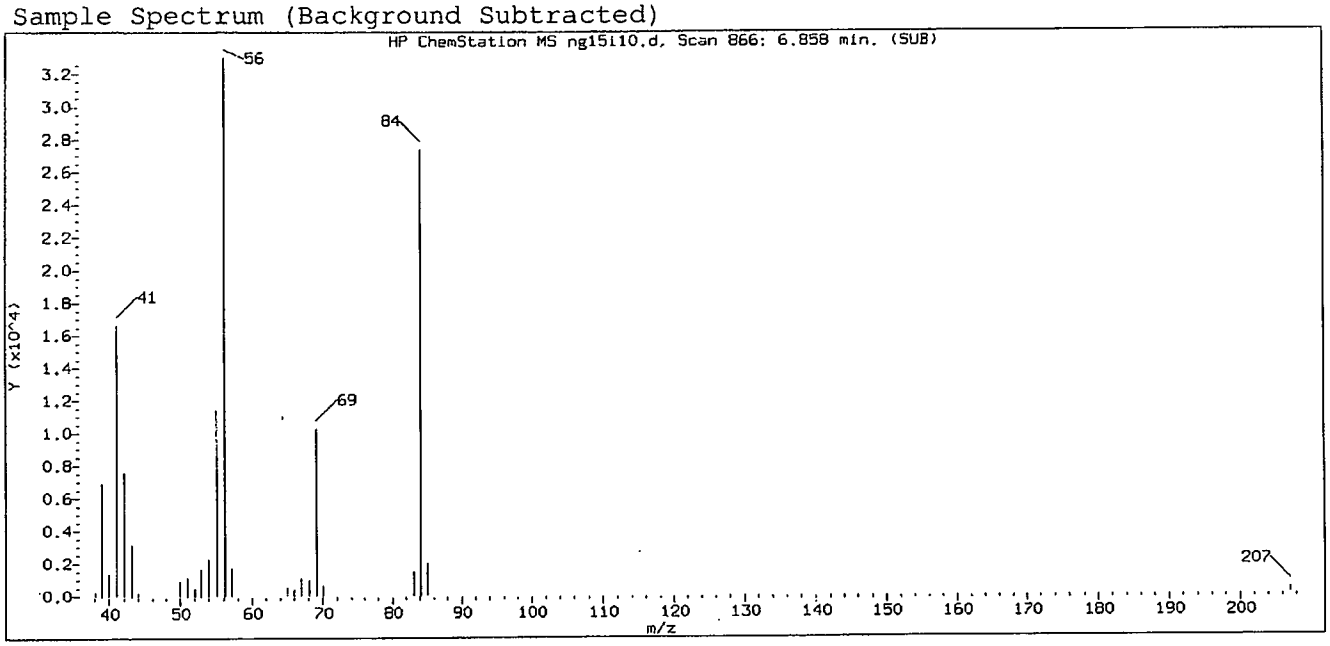
Compound Number	: 55		
Compound Name	: Cyclohexane (mz 69)		
Scan Number	: 866		
Retention Time (minutes)	: 6.858		
Quant Ion	: 69.00		
Area (flag)	: 42023M		
On-Column Amount (ng)	: 10.5335		
Integration start scan	: 852	Integration stop scan:	880
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

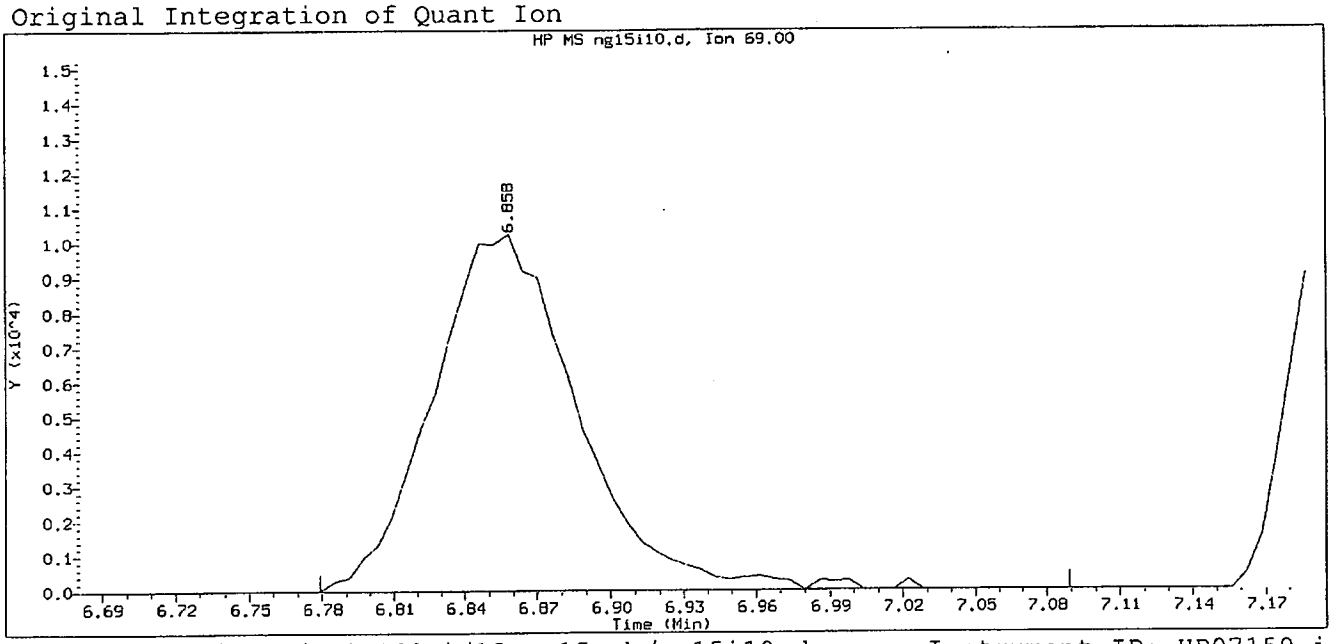
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 55		
Compound Name	: Cyclohexane (mz 69)		
Scan Number	: 866		
Retention Time (minutes)	: 6.858		
Quant Ion	: 69.00		
Area	: 42917		
On-column Amount (ng)	: 10.7175		
Integration start scan	: 852	Integration stop scan:	903
Y at integration start	: 0	Y at integration end:	0

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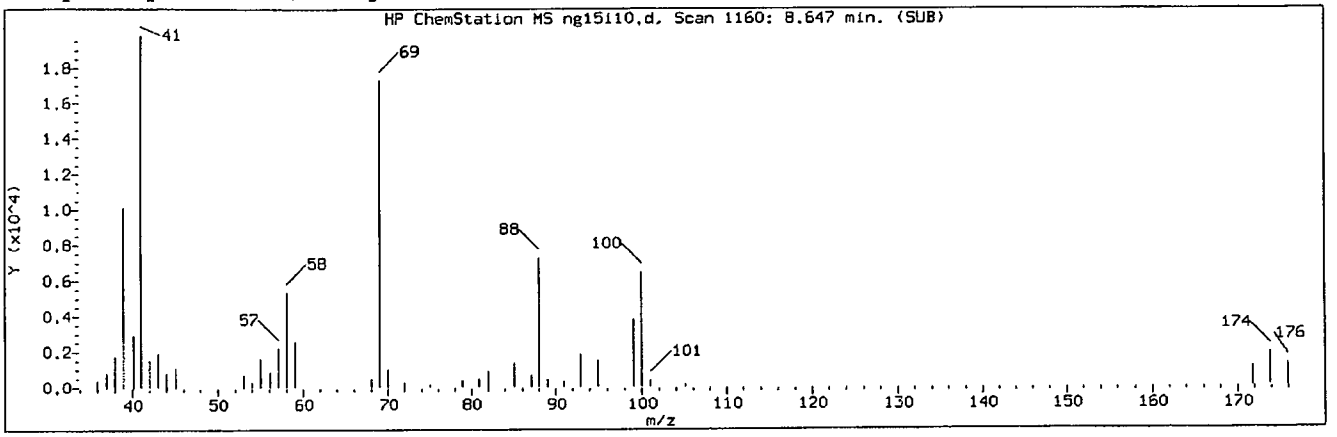
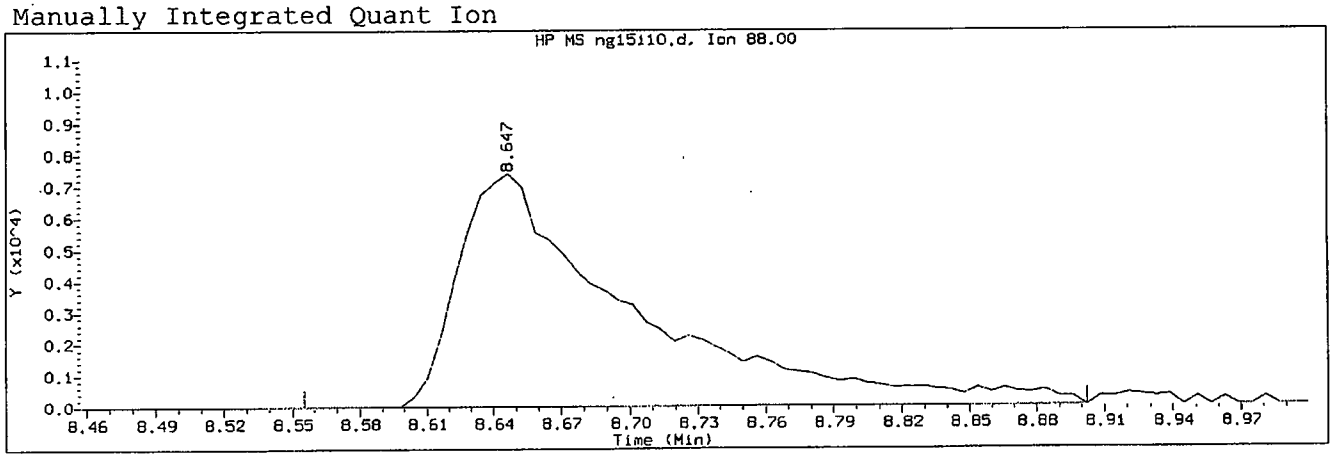
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

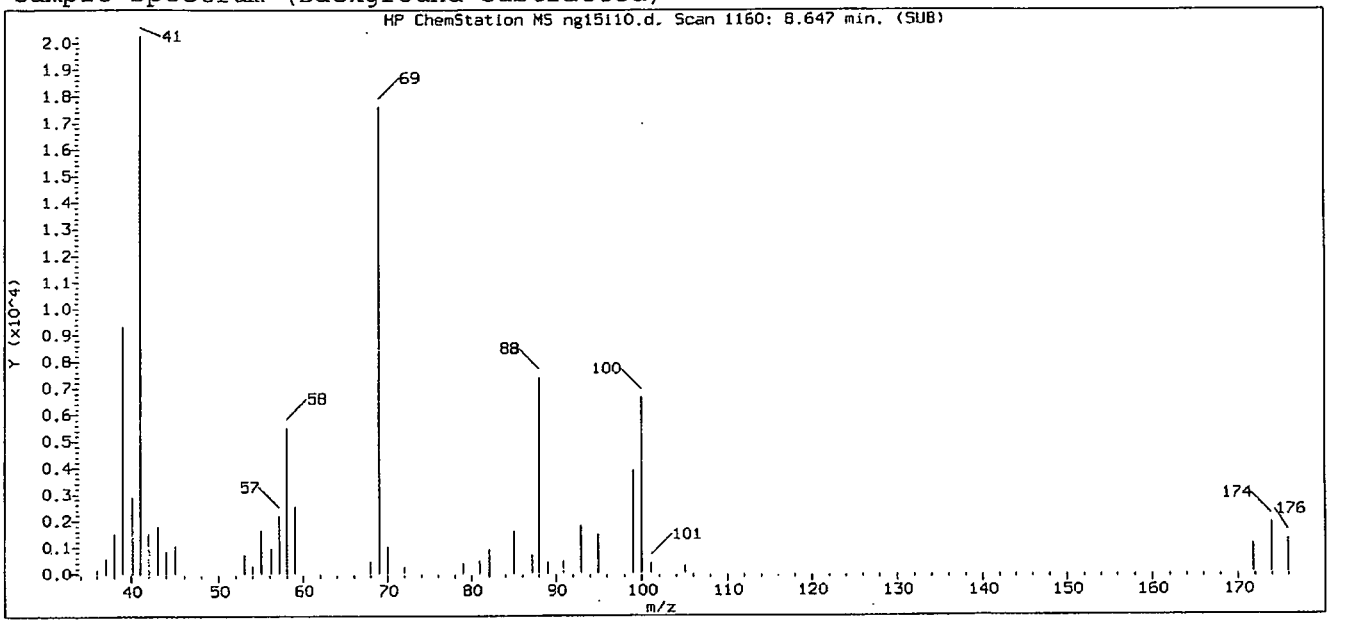
Compound Number	: 80		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1160		
Retention Time (minutes)	: 8.647		
Quant Ion	: 88.00		
Area (flag)	: 39710M		
On-Column Amount (ng)	: 285.3593		
Integration start scan	: 1144	Integration stop scan:	1201
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

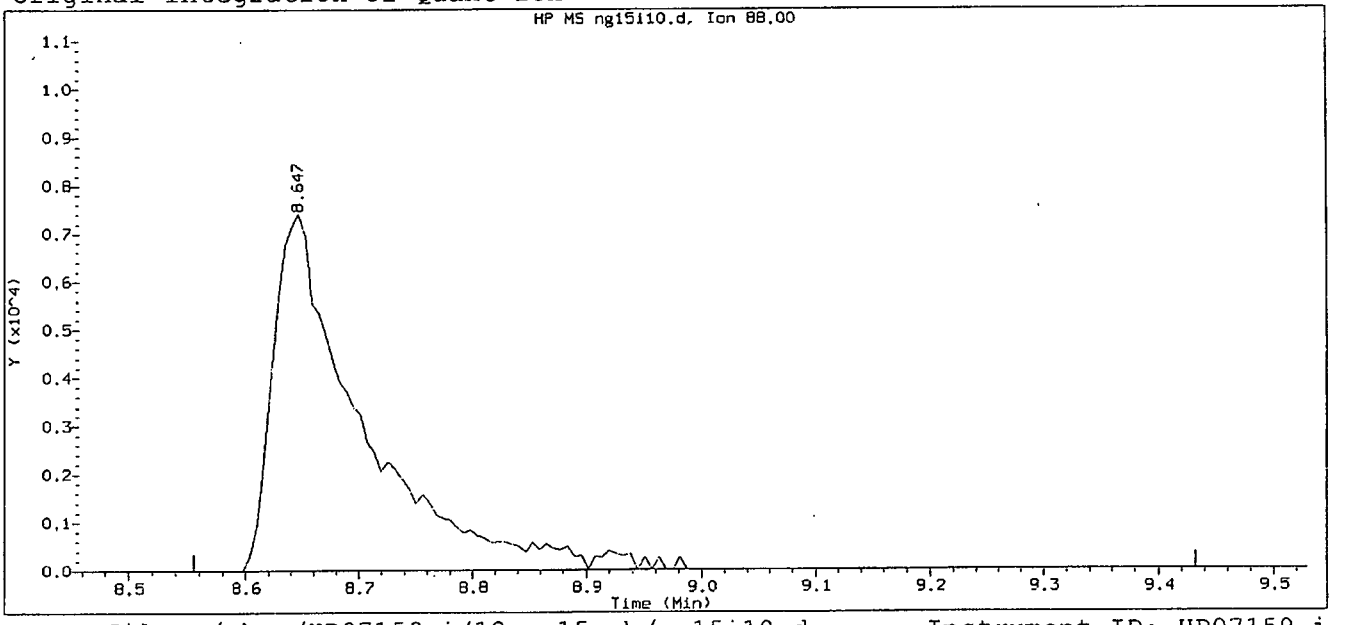
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

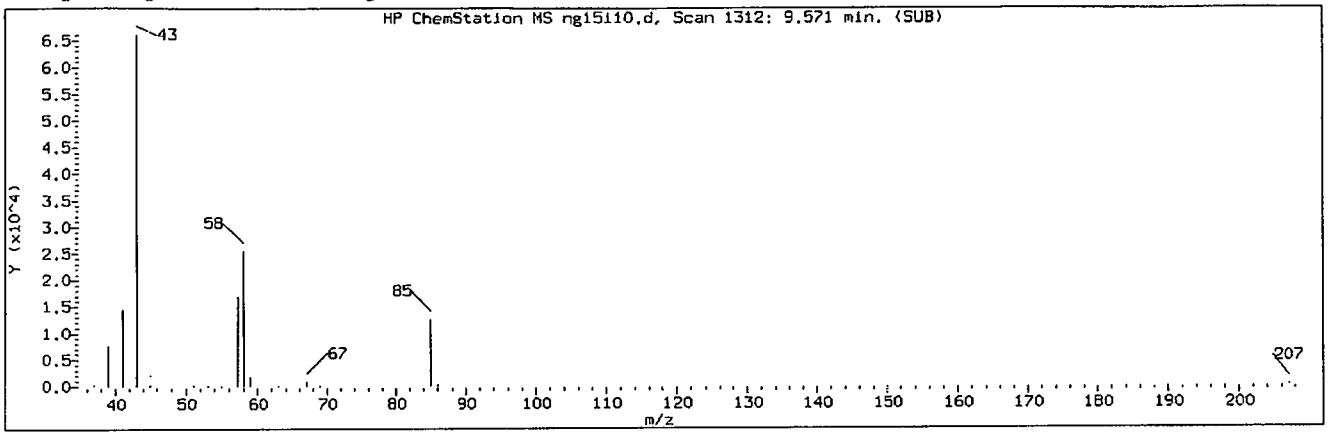
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

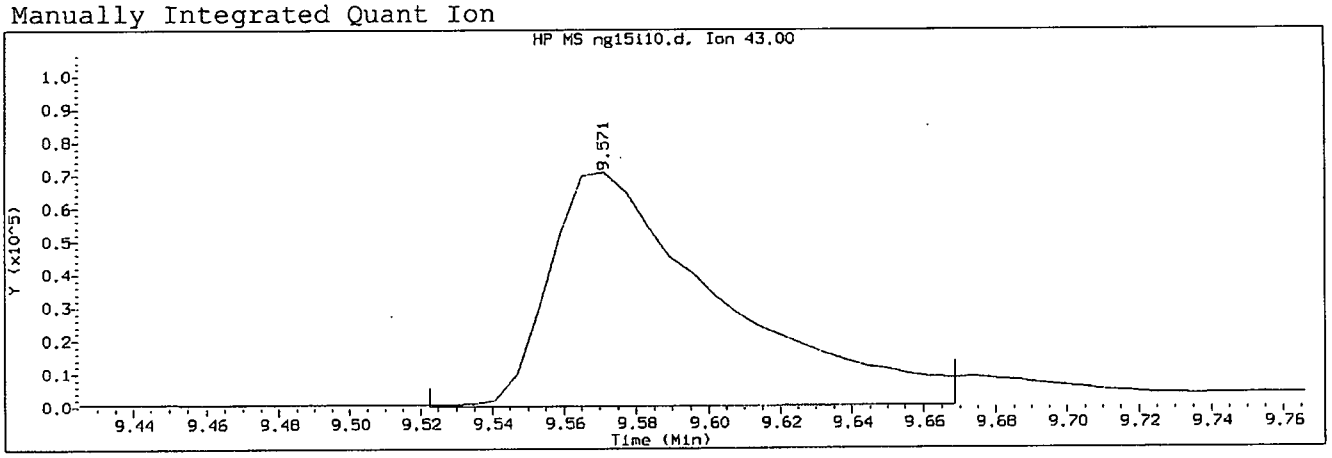
Compound Number	: 80		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1160		
Retention Time (minutes)	: 8.647		
Quant Ion	: 88.00		
Area	: 40693		
On-column Amount (ng)	: 291.0537		
Integration start scan	: 1144	Integration stop scan:	1288
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

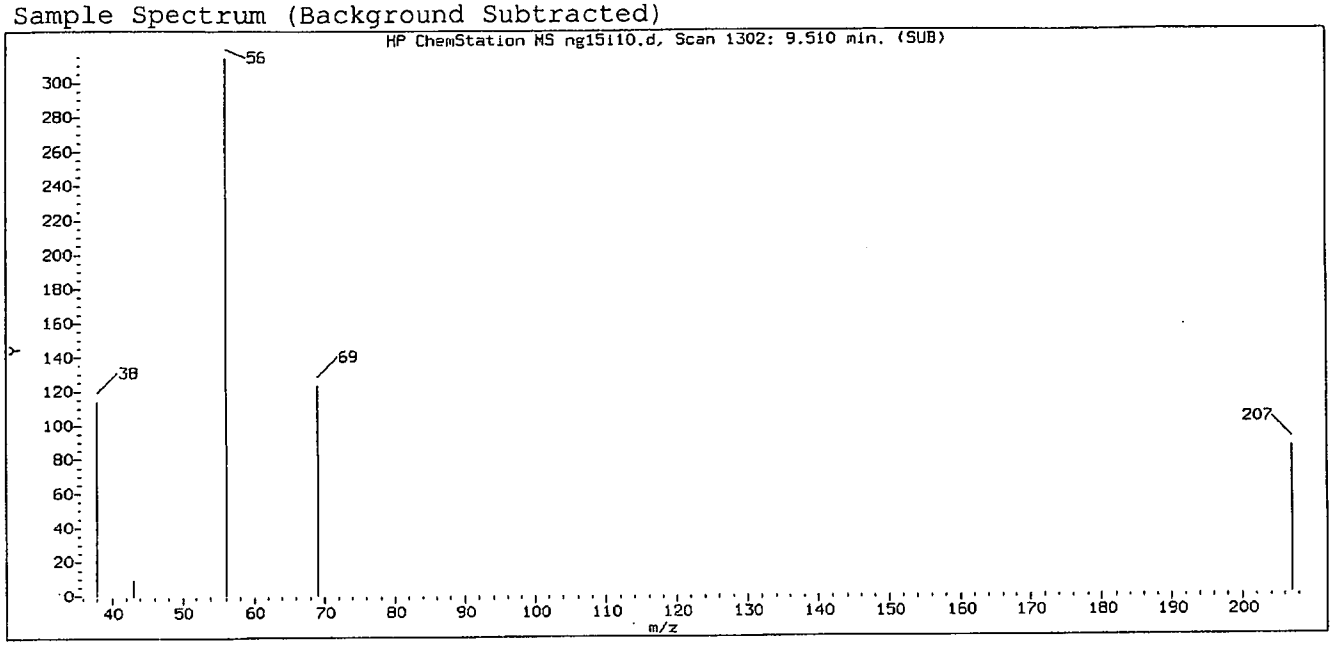
Compound Number : 85
Compound Name : 4-Methyl-2-Pentanone
Scan Number : 1312
Retention Time (minutes): 9.571
Quant Ion : 43.00
Area (flag) : 235322M
On-Column Amount (ng) : 18.7936
Integration start scan : 1303 Integration stop scan: 1327
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

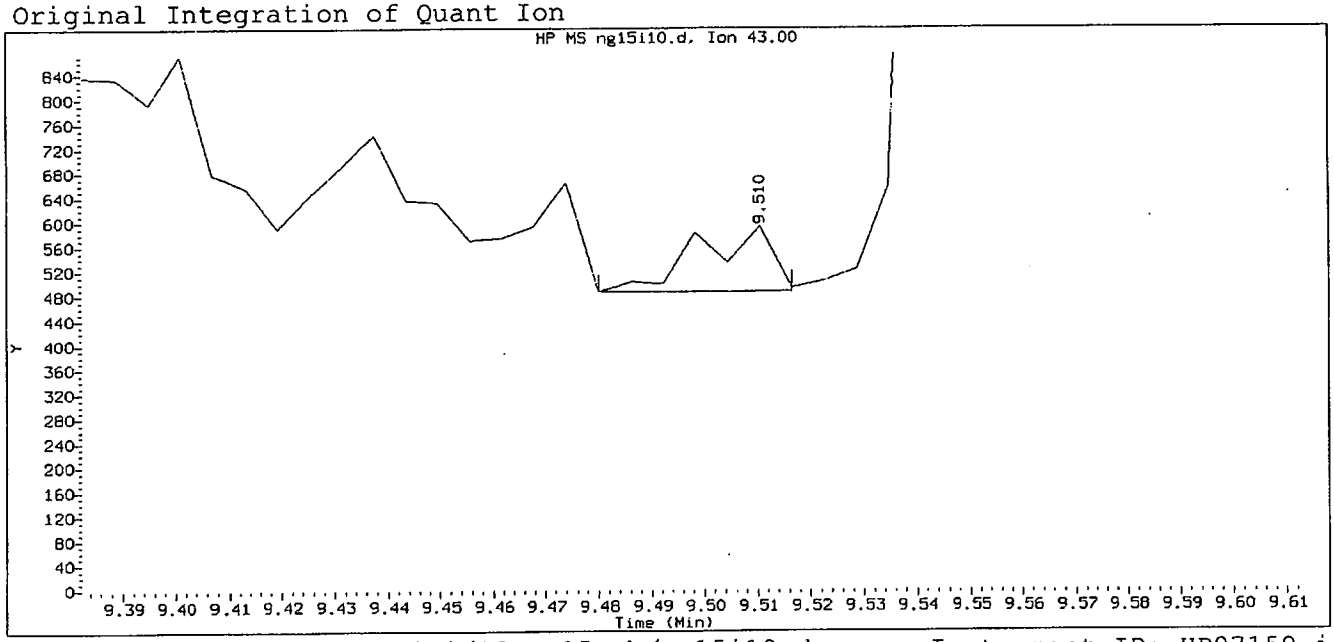
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

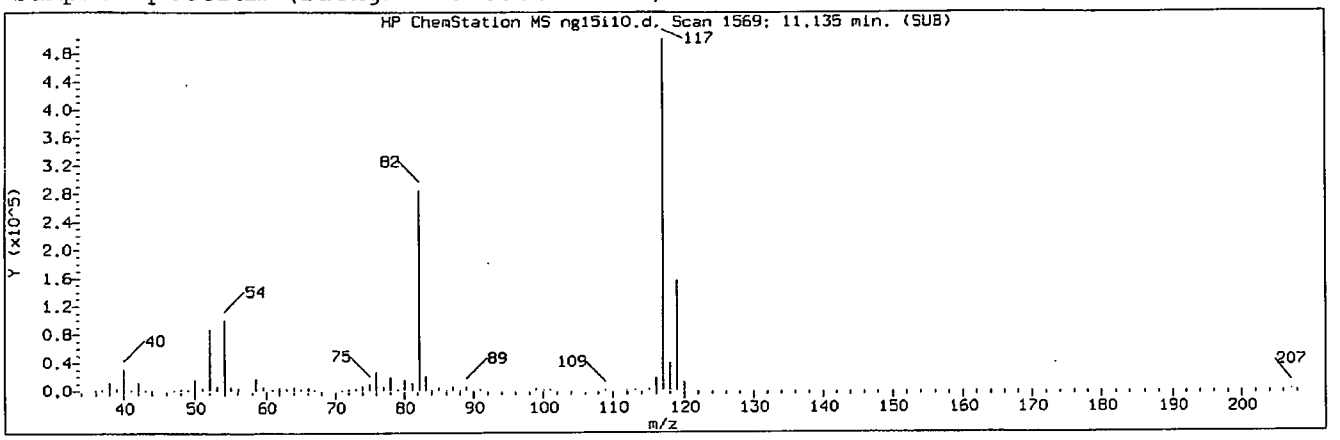
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

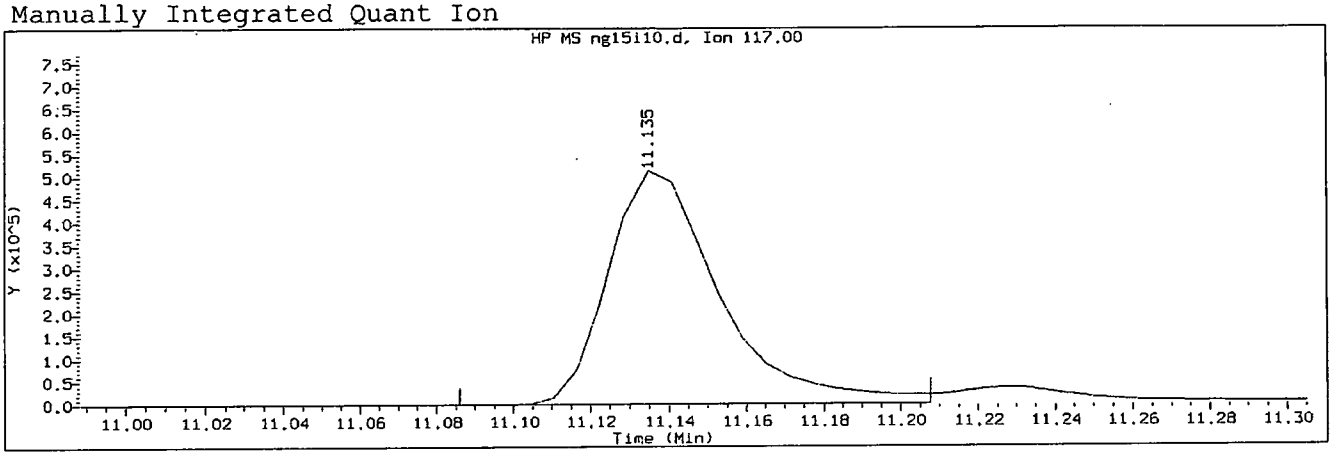
Compound Number	: 85		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 1302		
Retention Time (minutes)	: 9.510		
Quant Ion	: 43.00		
Area	: 102		
On-column Amount (ng)	: 0.0097		
Integration start scan	: 1296	Integration stop scan:	1302
Y at integration start	: 485	Y at integration end:	485

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

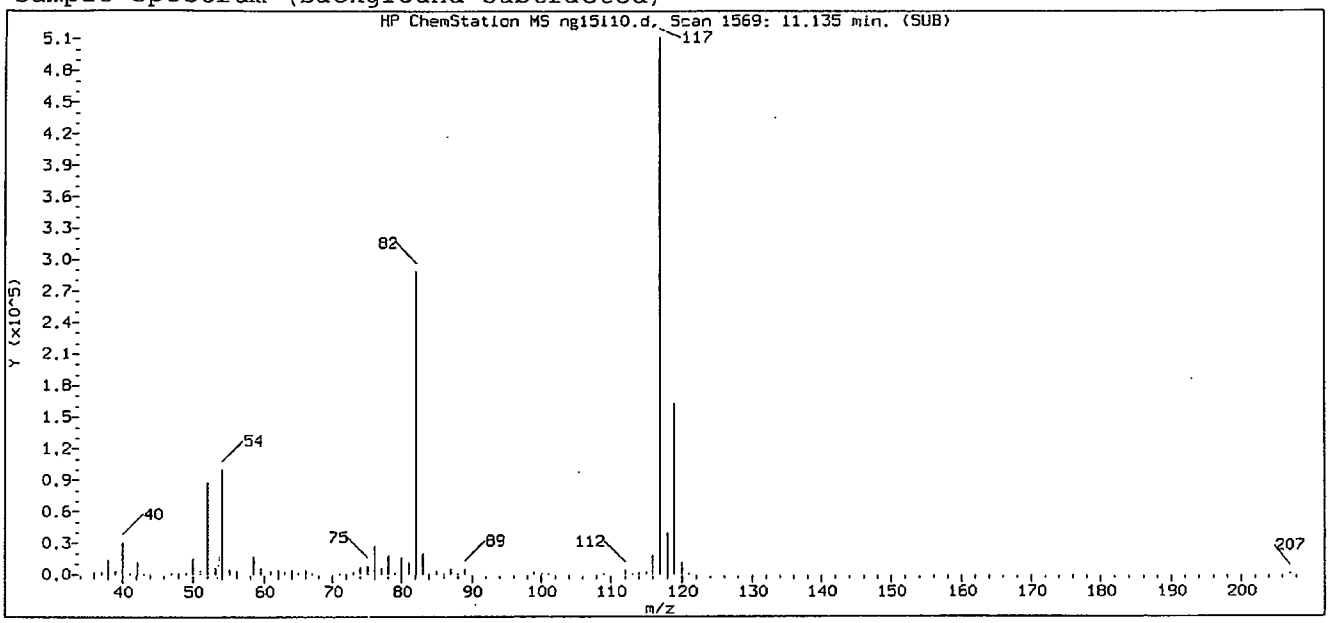
Compound Number	: 98		
Compound Name	: Chlorobenzene-d5		
Scan Number	: 1569		
Retention Time (minutes)	: 11.135		
Quant Ion	: 117.00		
Area (flag)	: 1023982M		
On-Column Amount (ng)	: 50.0000		
Integration start scan	: 1560	Integration stop scan:	1580
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

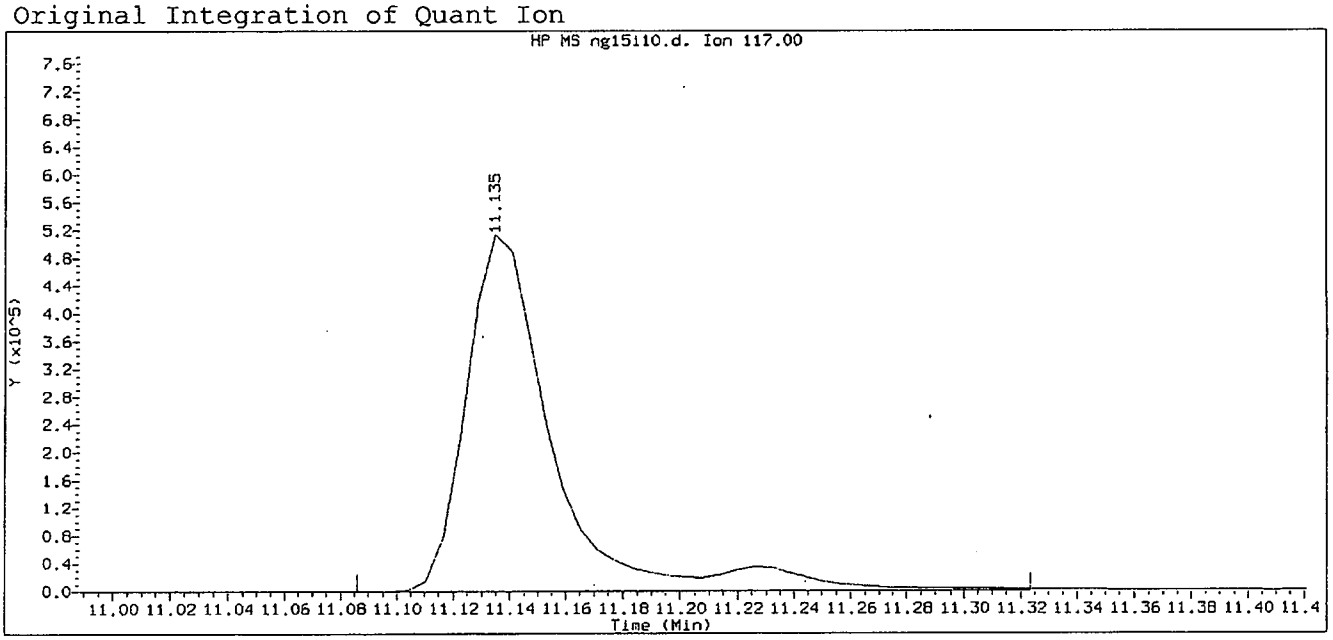
Analyst responsible for change: Digitally signed by Sarah A. Gull
on 08/15/2012 at 19:07
Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

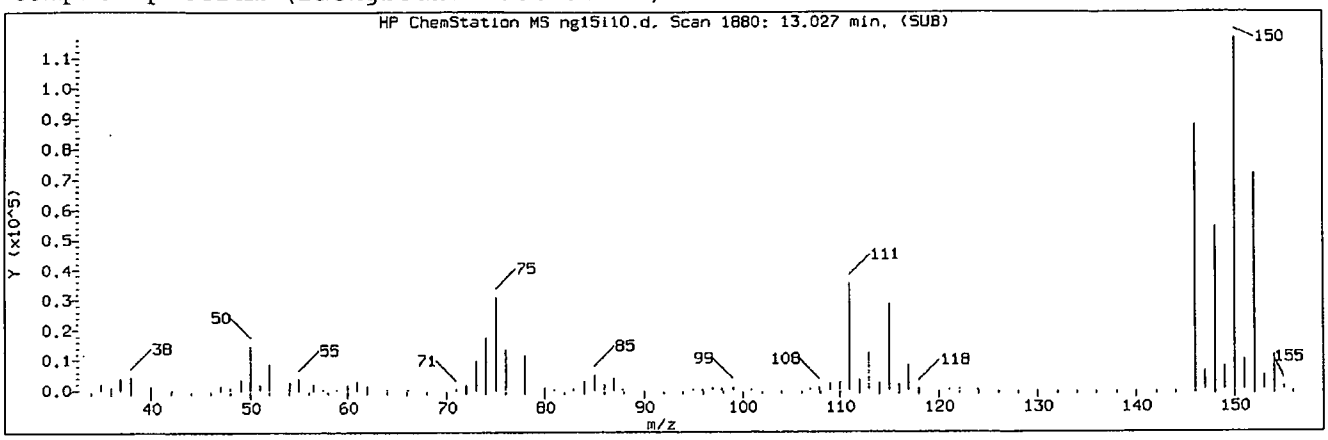
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

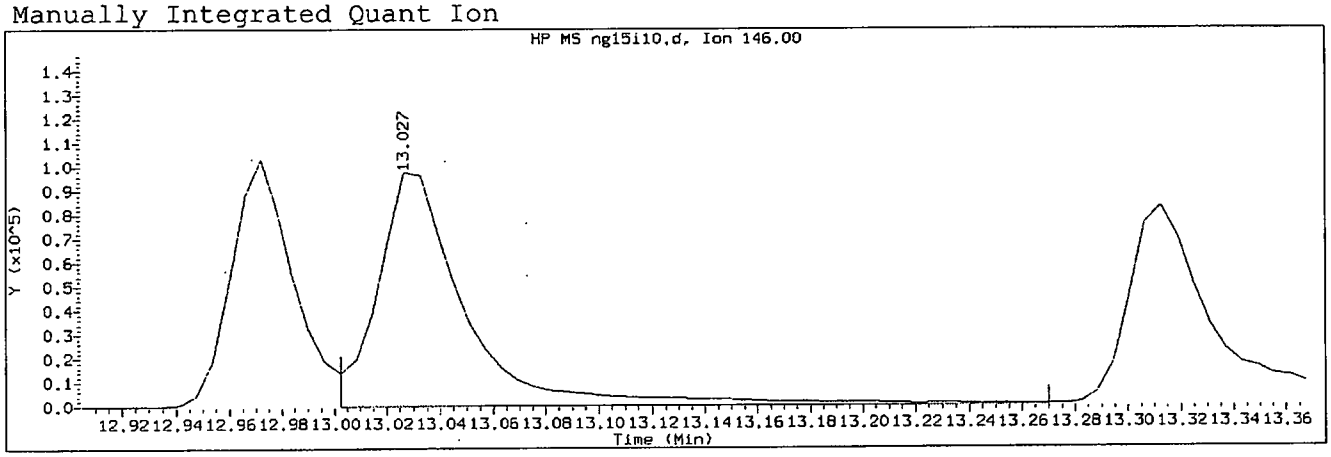
Compound Number	: 98		
Compound Name	: Chlorobenzene-d5		
Scan Number	: 1569		
Retention Time (minutes)	: 11.135		
Quant Ion	: 117.00		
Area	: 1111135		
On-column Amount (ng)	: 50.0000		
Integration start scan	: 1560	Integration stop scan:	1599
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07:
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:42 sag03174

Sample Name: VSTD010 Lab Sample ID: VSTD010

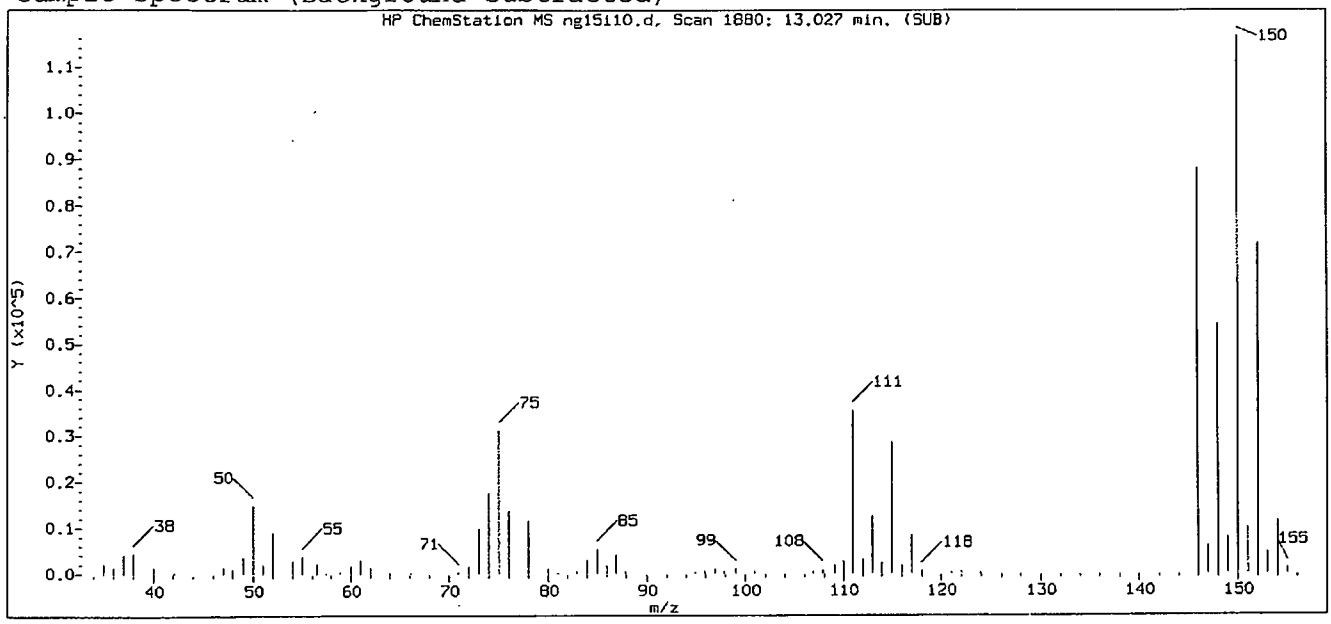
Compound Number	: 131		
Compound Name	: 1,4-Dichlorobenzene		
Scan Number	: 1880		
Retention Time (minutes)	: 13.027		
Quant Ion	: 146.00		
Area (flag)	: 224922A		
On-Column Amount (ng)	: 11.5061		
Integration start scan	: 1875	Integration stop scan:	1919
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

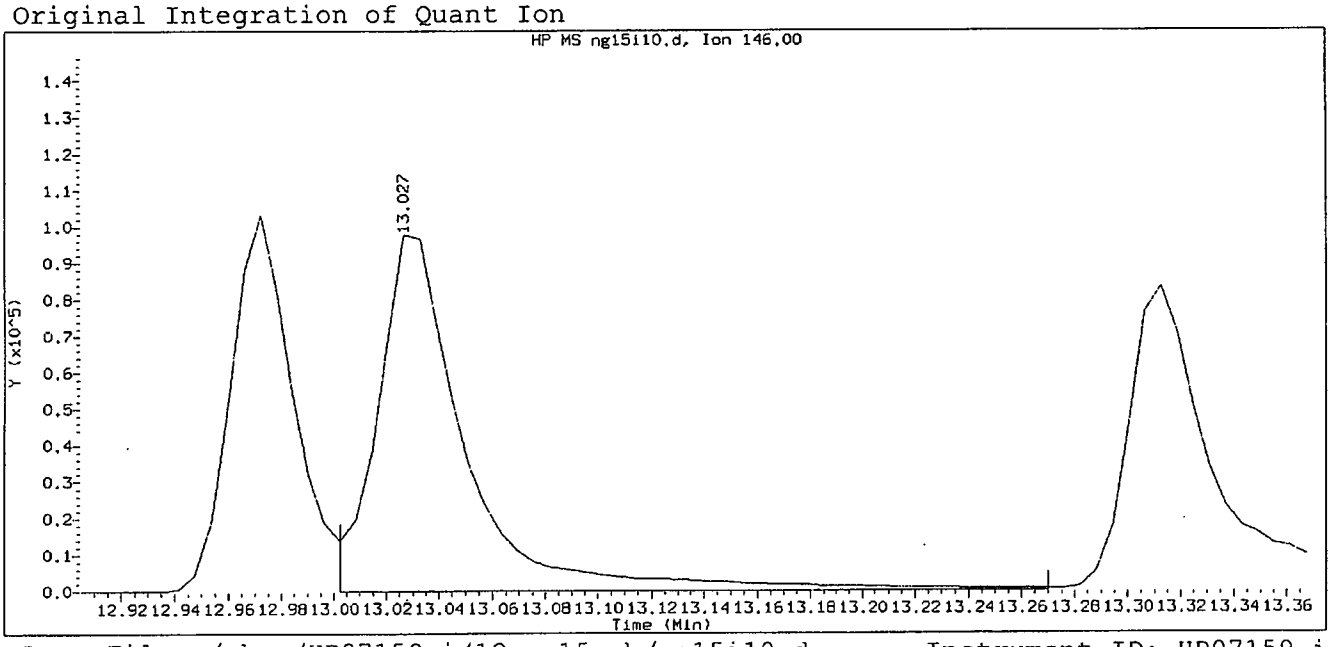
Analyst responsible for change: Digitally signed by Saran A. Guill on 08/15/2012 at 19:07. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



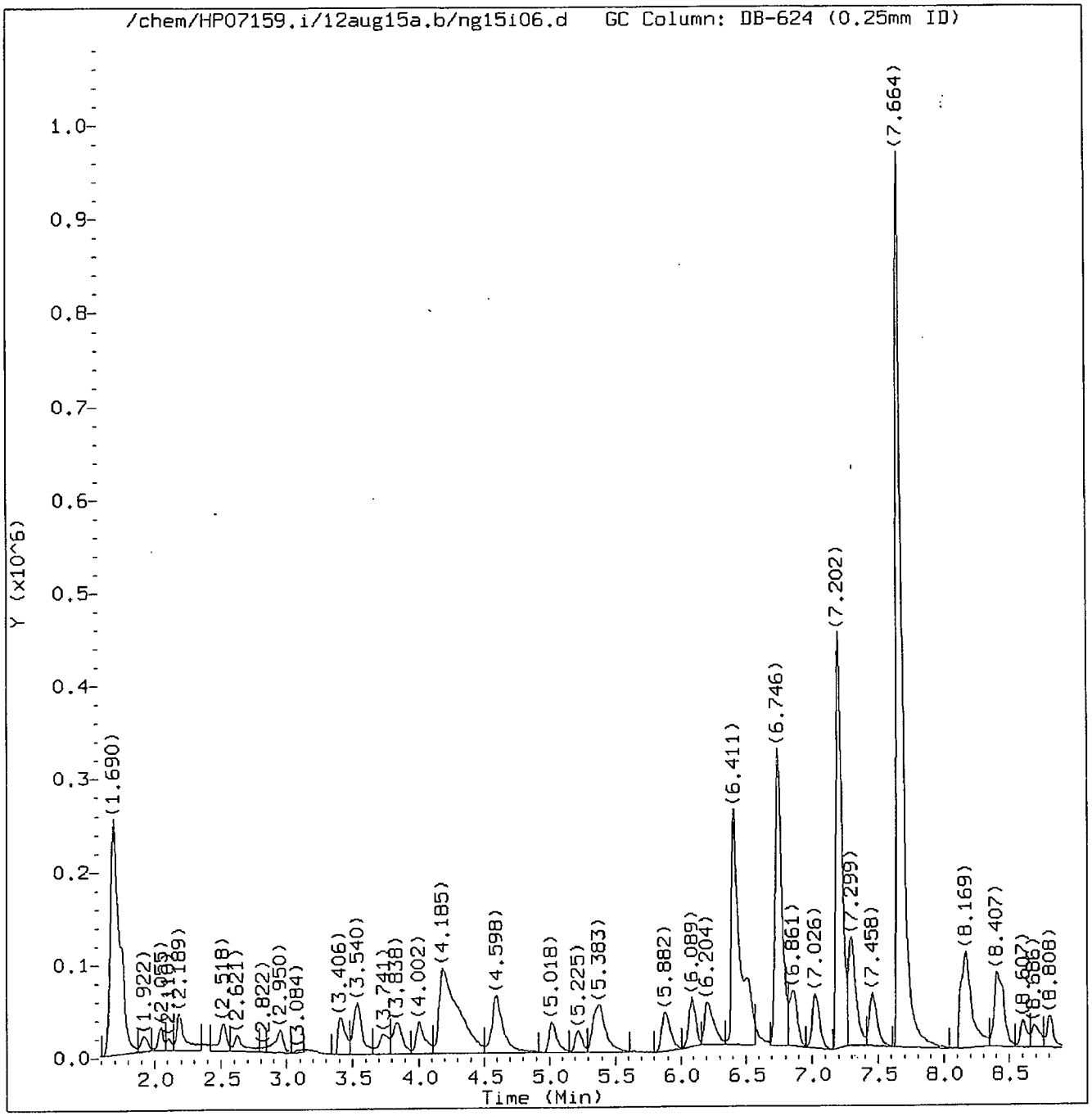
Data File: /chem/HP07159.i/12aug15a.b/ng15i10.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:11 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 16:31 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number	: 131		
Compound Name	: 1,4-Dichlorobenzene		
Scan Number	: 1880		
Retention Time (minutes)	: 13.027		
Quant Ion	: 146.00		
Area	: 224922		
On-column Amount (ng)	: 11.5062		
Integration start scan	: 1875	Integration stop scan:	1919
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/15/2012 at 19:07.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d
Injection date and time: 15-AUG-2012 13:51

Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 14:11

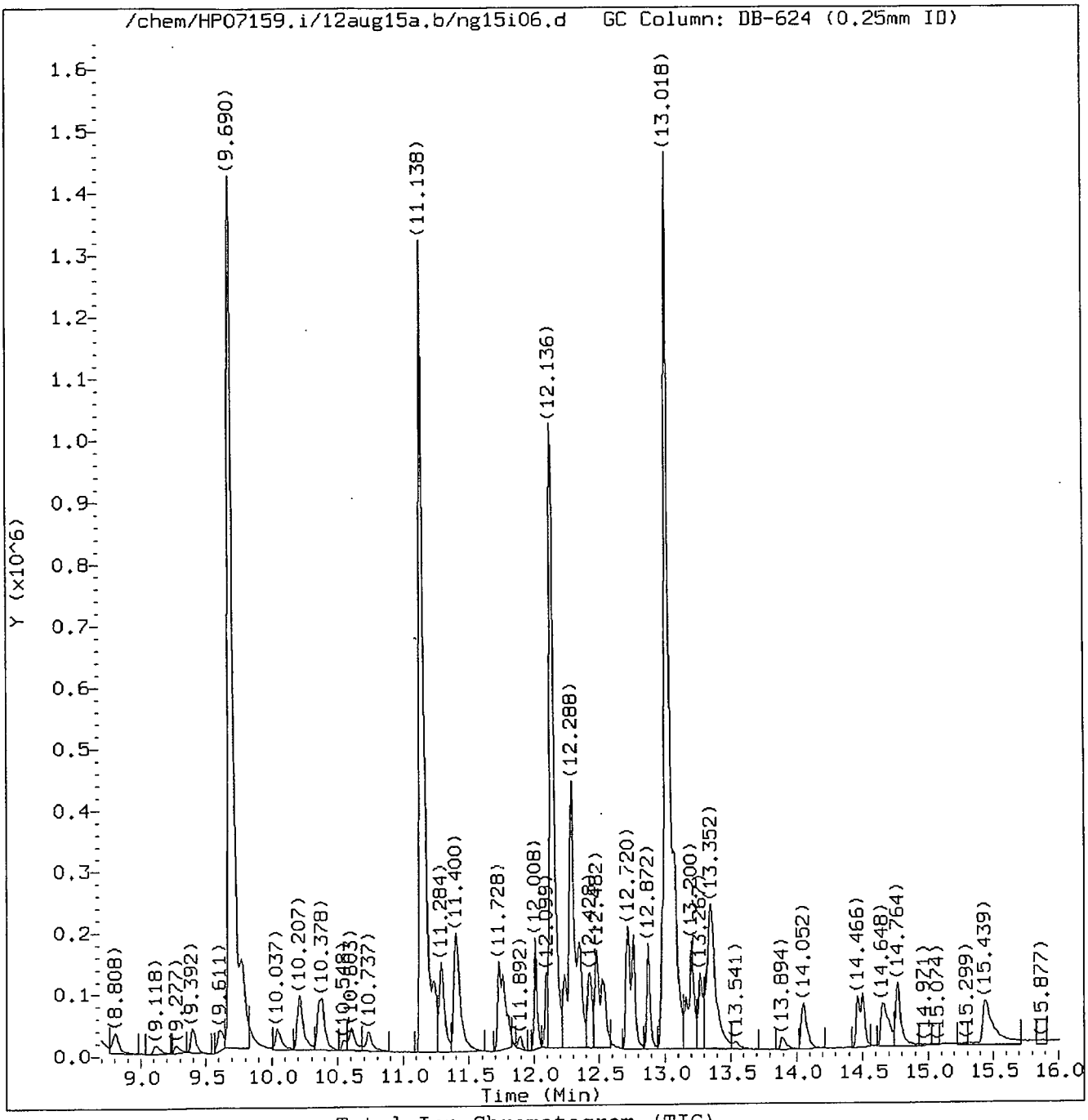
Sublist used: 8260WI

Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004

Lab Sample ID: VSTD004

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:06.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d
Injection date and time: 15-AUG-2012 13:51

Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 14:11

Sublist used: 8260WI

Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004

Lab Sample ID: VSTD004

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:06.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.922	85	43367	4.475
3) Chloromethane	(1)	2.055	50	36982	4.286
4) Vinyl Chloride	(1)	2.183	62	36562	4.186
5) Bromomethane	(1)	2.518	94	23694	4.483
7) Chloroethane	(1)	2.621	64	19782	4.424
8) Trichlorofluoromethane	(1)	2.950	101	43407	4.470
12) Ethanol	(4)	3.169	45	33158	223.753
13) Acrolein	(4)	3.412	56	95515	40.037
16) 1,1-Dichloroethene	(1)	3.534	96	25031	4.175
18) Freon 113	(1)	3.540	101	25558	4.194
19) Acetone	(1)	3.643	58	8589	6.945
20) Methyl Iodide	(1)	3.734	142	42942	4.052
21) 2-Propanol	(4)	3.783	45	73924	72.390
22) Carbon Disulfide	(1)	3.838	76	78613	3.878
23) Allyl Chloride	(1)	4.008	41	54982	4.343
24) Methyl Acetate	(1)	4.075	43	37096	4.106
25) Methylene Chloride	(1)	4.172	84	30929	4.051
26)*t-Butyl Alcohol-d10	(4)	4.197	65	352356	250.000
27) t-Butyl Alcohol	(4)	4.337	59	132022	77.792
30) Methyl Tertiary Butyl Ether	(1)	4.586	73	96909	3.998
29) trans-1,2-Dichloroethene	(1)	4.598	96	28579	4.139
28) Acrylonitrile	(1)	4.653	53	15115M	3.359
34) n-Hexane	(1)	5.018	57	40214	4.350
36) 1,1-Dichloroethane	(1)	5.225	63	54218	4.115
33) 1,2-Dichloroethene (total)	(1)		96	60101	8.130
37) di-Isopropyl Ether	(1)	5.347	45	99396	4.037
38) 2-Chloro-1,3-Butadiene	(1)	5.389	53	41179	3.898
39) Ethyl t-Butyl Ether	(1)	5.882	59	96954	4.025
44) 2,2-Dichloropropane	(1)	6.077	77	37874	3.976
40) cis-1,2-Dichloroethene	(1)	6.095	96	31522	3.991
42) 2-Butanone	(1)	6.180	43	38240	6.552
45) Propionitrile	(4)	6.204	54	122359M	68.210
48) Bromochloromethane	(1)	6.405	128	15809	3.902
47) Methacrylonitrile	(1)	6.411	67	188476	37.597
49) Tetrahydrofuran	(4)	6.509	71	12497	7.556
50) Chloroform	(1)	6.527	83	50422	4.057
52)$Dibromofluoromethane(mz111)	(1)	6.746	111	335624	49.876
51)$Dibromofluoromethane	(1)	6.746	113	332985	50.545

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 08/15/2012 at 19:06.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(1)	6.782	97	44010	4.304
56) Cyclohexane	(1)	6.861	56	53159	4.155
55) Cyclohexane (mz 69)	(1)	6.867	69	17276	4.313
54) Cyclohexane (mz 84)	(1)	6.867	84	43429	4.077
59) Carbon Tetrachloride	(1)	7.013	117	29288	3.908
58) 1,1-Dichloropropene	(1)	7.032	75	44619M	4.239
61) Isobutyl Alcohol	(4)	7.196	41	98424	182.557
63)$1,2-Dichloroethane-d4(mz65)	(1)	7.202	65	394430	50.958
62)$1,2-Dichloroethane-d4	(1)	7.202	102	89990	51.072
64)$1,2-Dichloroethane-d4(mz104)	(1)	7.202	104	56353	50.367
65) Benzene	(1)	7.299	78	124463	4.111
66) 1,2-Dichloroethane	(1)	7.318	62	38335	3.998
67) 1,2-Dichloroethane (mz 98)	(1)	7.324	98	3698	3.737
68) t-Amyl Methyl Ether	(1)	7.458	73	91018	3.914
70)*Fluorobenzene	(1)	7.664	96	1473777	50.000
69) n-Heptane	(1)	7.677	43	40745	4.633
71) n-Butanol	(4)	8.133	56	139373	330.334
74) Trichloroethene	(1)	8.169	95	31056	4.147
75) Methylcyclohexane	(1)	8.413	83	50353	4.049
76) 1,2-Dichloropropane	(1)	8.449	63	33601	4.013
78) Dibromomethane	(1)	8.607	93	19659	3.879
80) 1,4-Dioxane	(4)	8.668	88	21489	164.053
77) Methyl Methacrylate	(1)	8.699	69	31781	3.759
81) Bromodichloromethane	(1)	8.808	83	31455	3.725
82) 2-Nitropropane	(4)	9.106	41	16099MA	6.837
83) 2-Chloroethyl Vinyl Ether	(1)	9.270	63	18502	3.241
84) cis-1,3-Dichloropropene	(1)	9.392	75	47913	3.926
85) 4-Methyl-2-Pentanone	(1)	9.617	43	95101	7.565
86)$Toluene-d8	(2)	9.690	98	1468188	47.895
87)$Toluene-d8(mz100)	(2)	9.690	100	976185	47.617
88) Toluene	(2)	9.775	92	80987	3.901
89) trans-1,3-Dichloropropene	(2)	10.043	75	45653	3.712
90) Ethyl Methacrylate	(2)	10.201	69	53258	3.542
91) 1,1,2-Trichloroethane	(2)	10.213	97	31293	3.814
93) Tetrachloroethene	(2)	10.359	166	30808	3.889
94) 1,3-Dichloropropane	(2)	10.390	76	52655	3.695
95) 2-Hexanone	(2)	10.548	43	61041M	6.177
96) Dibromochloromethane	(2)	10.603	129	21767	3.112

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/15/2012 at 19:06
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,2-Dibromoethane	(2)	10.737	107	30812	3.617
98)*Chlorobenzene-d5	(2)	11.138	117	1095636	50.000
100) Chlorobenzene	(2)	11.168	112	88212	3.844
101) 1,1,1,2-Tetrachloroethane	(2)	11.235	131	25296	3.552
102) Ethylbenzene	(2)	11.290	91	138578	3.433
103) m+p-Xylene	(2)	11.400	106	118273	7.666
104) Xylene (Total)	(2)		106	176192	11.486
106) o-Xylene	(2)	11.734	106	57919	3.821
109) Styrene	(2)	11.765	104	89023	3.512
110) Bromoform	(2)	11.892	173	13224	2.499
111) Isopropylbenzene	(2)	12.008	105	144515	3.855
112) Cyclohexanone	(4)	12.099	55	102521	193.452
114)$4-Bromofluorobenzene	(2)	12.136	95	545371	48.934
115)$4-Bromofluorobenzene(mz174)	(2)	12.142	174	411955	47.197
116) 1,1,2,2-Tetrachloroethane	(3)	12.233	83	50619	3.830
119) 1,2,3-Trichloropropane	(3)	12.282	110	13325	3.603
117) Bromobenzene	(3)	12.282	156	35221	3.806
118) trans-1,4-Dichloro-2-Butene	(3)	12.288	53	105870	32.289
120) n-Propylbenzene	(3)	12.349	91	158131	4.075
121) 2-Chlorotoluene	(3)	12.428	126	33885	3.869
122) 1,3,5-Trimethylbenzene	(3)	12.482	105	120676	3.980
123) 4-Chlorotoluene	(3)	12.531	126	37437	3.940
124) tert-Butylbenzene	(3)	12.714	134	25843	3.902
125) Pentachloroethane	(3)	12.732	167	17890	3.374
126) 1,2,4-Trimethylbenzene	(3)	12.762	105	114734	3.732
127) sec-Butylbenzene	(3)	12.872	105	146111	4.092
128) p-Isopropyltoluene	(3)	12.981	119	114695	3.776
129) 1,3-Dichlorobenzene	(3)	12.981	146	49464	3.168
130)*1,4-Dichlorobenzene-d4	(3)	13.018	152	575820	50.000
131) 1,4-Dichlorobenzene	(3)	13.036	146	90538	4.582
132) 1,2,3-Trimethylbenzene	(3)	13.079	105	128141	3.889
133) Benzyl Chloride	(3)	13.158	91	45660M	2.171
134) 1,3-Diethylbenzene	(3)	13.200	105	67353	3.623
135) 1,4-Diethylbenzene	(3)	13.267	105	66504	3.710
137) 1,2-Dichlorobenzene	(3)	13.334	146	72597	4.052
136) n-Butylbenzene	(3)	13.334	92	64163	4.005
138) 1,2-Diethylbenzene	(3)	13.352	105	109520	4.979
139) 1,2-Dibromo-3-Chloropropane	(3)	13.894	75	10715	3.541

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 08/15/2012 at 19:06
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d
Injection date and time: 15-AUG-2012 13:51

Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 14:11

Sublist used: 8260WI

Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
140) 1,2,4-Trichlorobenzene	(3)	14.466	180	48266	3.936
141) Hexachlorobutadiene	(3)	14.502	225	15933	3.742
142) Naphthalene	(3)	14.666	128	178045	3.885
144) 1,2,3-Trichlorobenzene	(3)	14.764	180	49362	4.011
145) 2-Methylnaphthalene	(3)	15.439	142	122059	4.543

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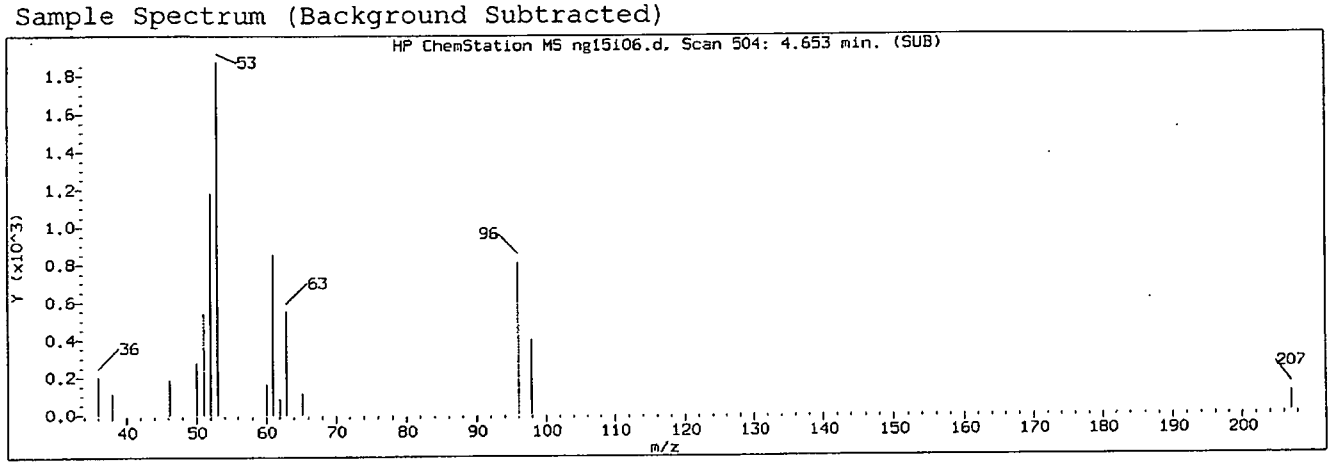
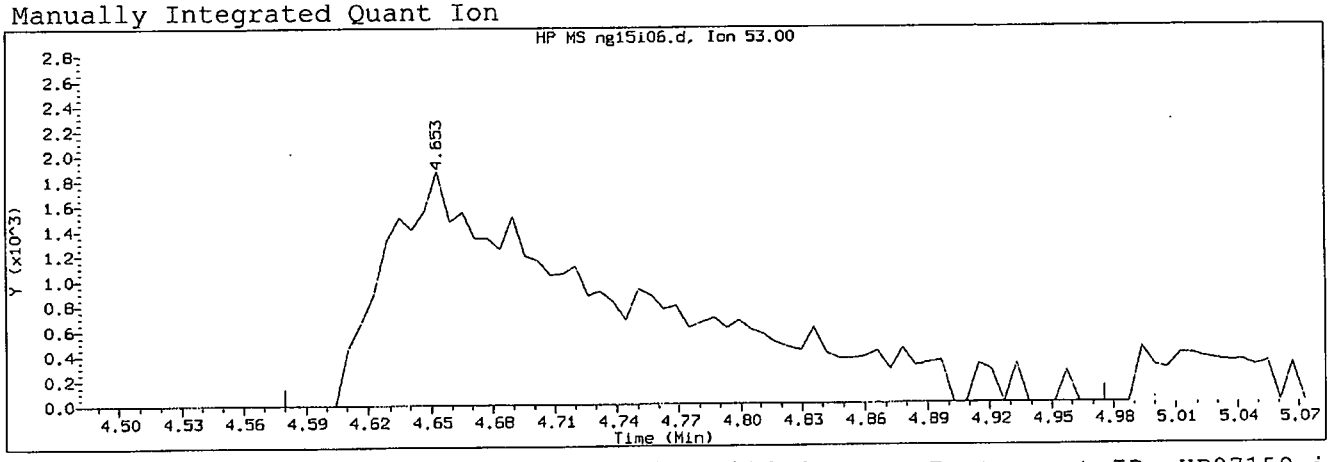
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004 Lab Sample ID: VSTD004

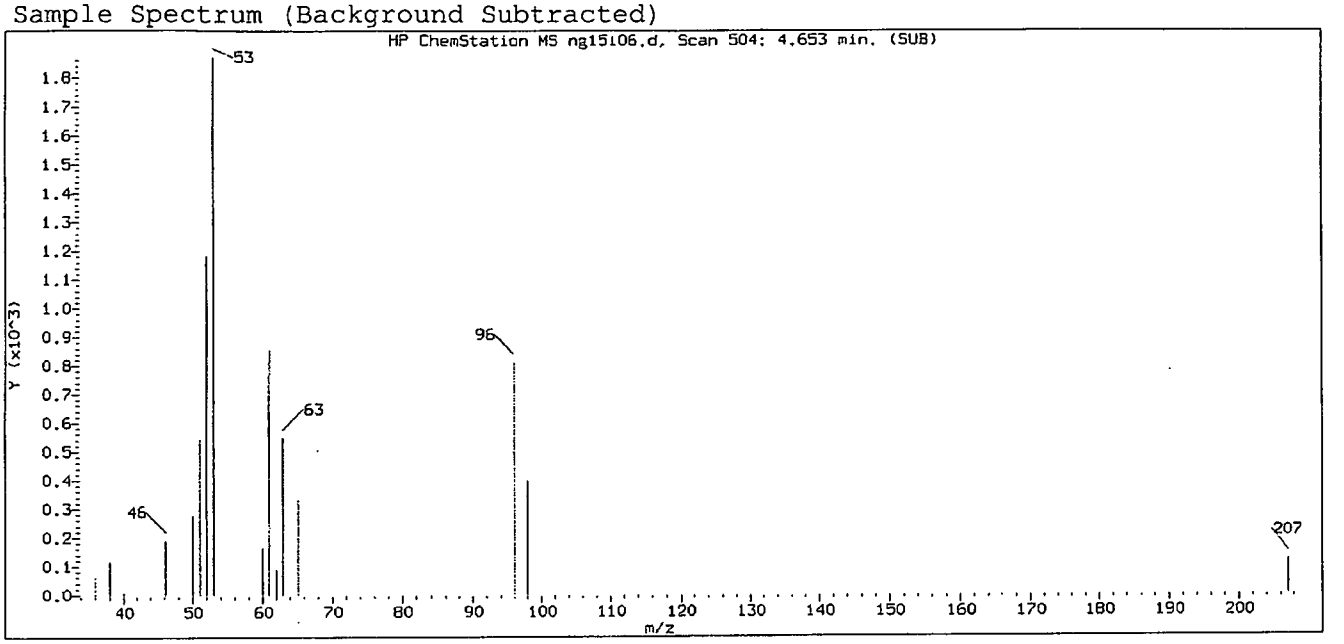
Compound Number	: 28		
Compound Name	: Acrylonitrile		
Scan Number	: 504		
Retention Time (minutes)	: 4.653		
Quant Ion	: 53.00		
Area (flag)	: 15115M		
On-Column Amount (ng)	: 3.3590		
Integration start scan	: 491	Integration stop scan:	556
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

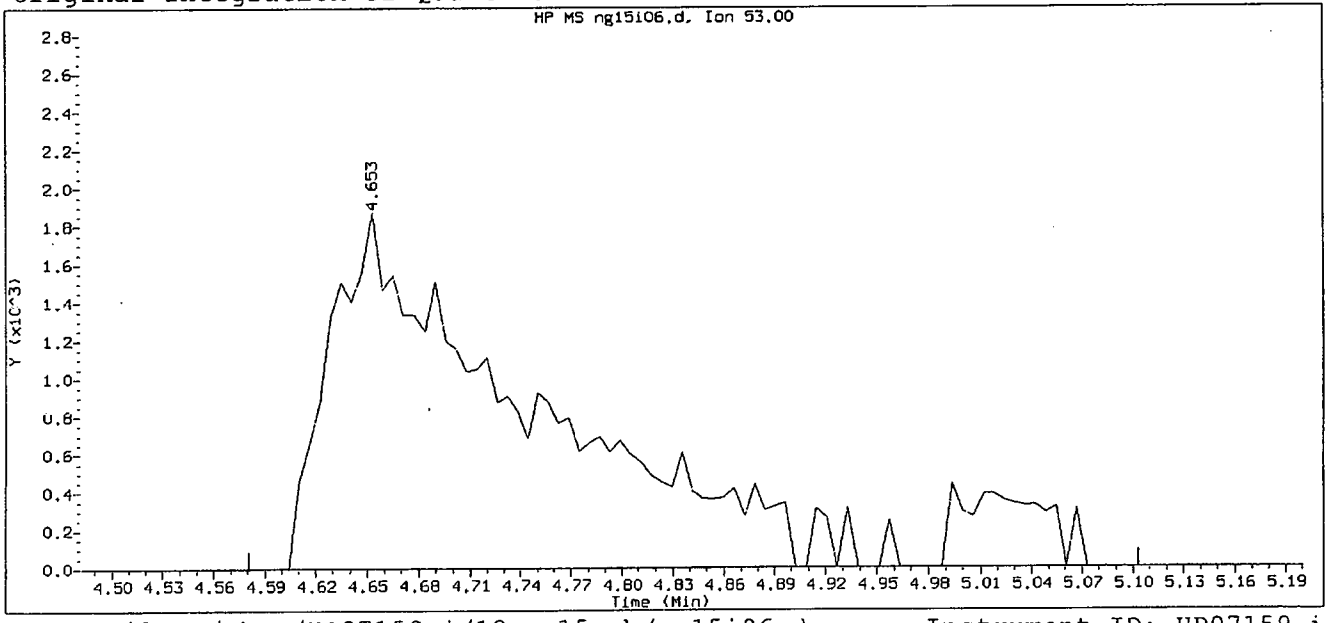
Analyst responsible for change: Digitally signed by Sarah A. Gullo
on 08/15/2012 at 19:06.
Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 685 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 14:11 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 28		
Compound Name	: Acrylonitrile		
Scan Number	: 504		
Retention Time (minutes)	: 4.653		
Quant Ion	: 53.00		
Area	: 16585		
On-column Amount (ng)	: 3.8316		
Integration start scan	: 491	Integration stop scan:	577
Y at integration start	: 0	Y at integration end:	0

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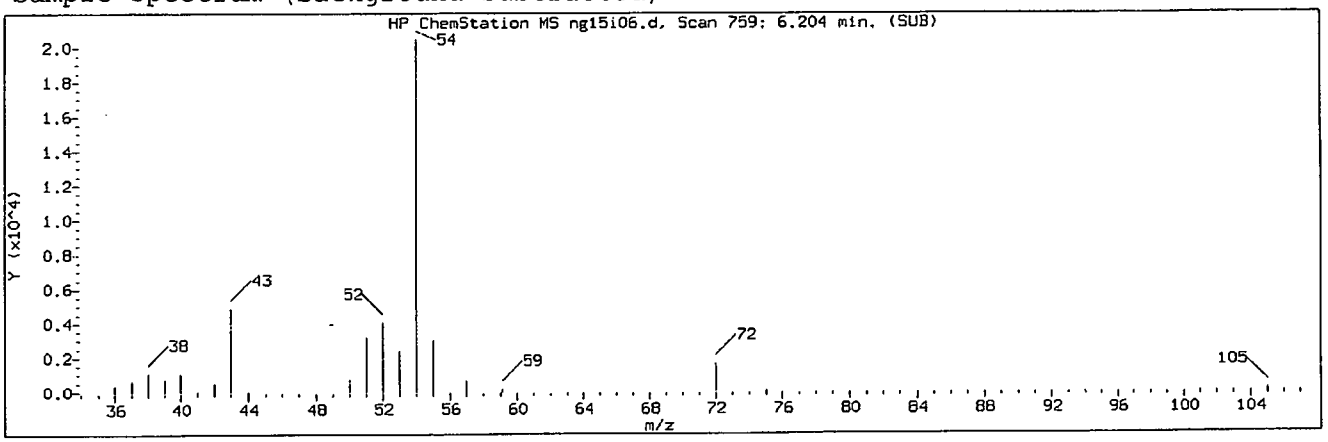
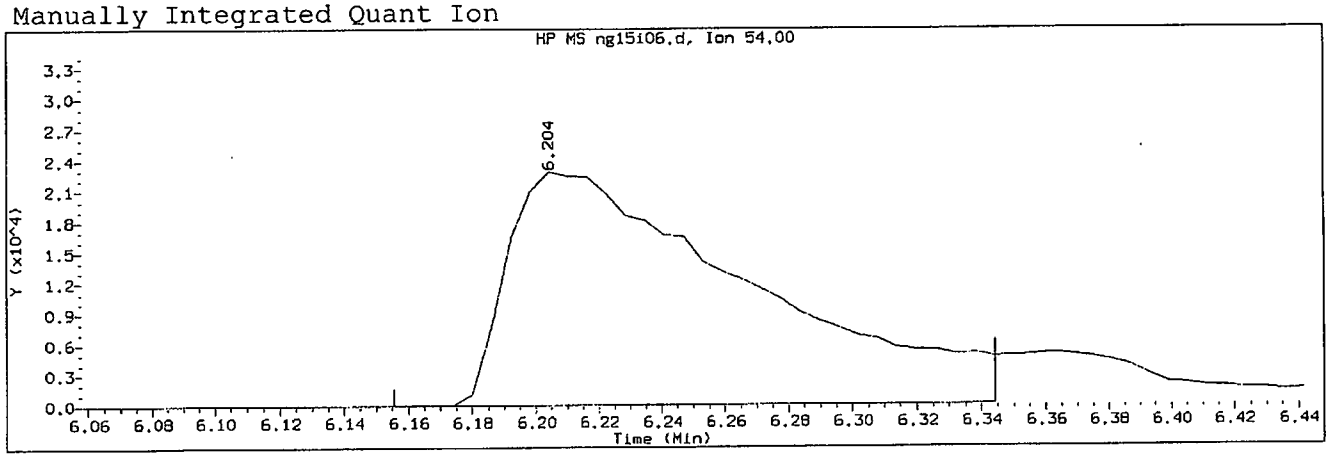
Target 3.5 signature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004 Lab Sample ID: VSTD004

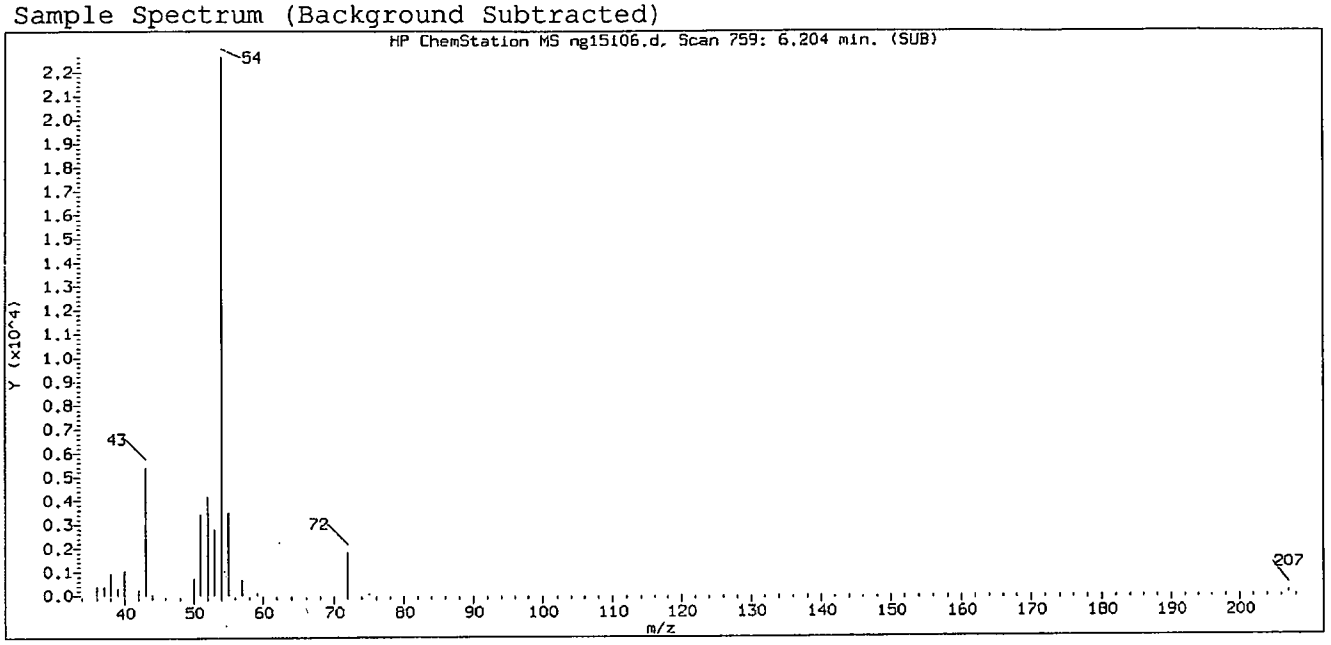
Compound Number	: 45		
Compound Name	: Propionitrile		
Scan Number	: 759		
Retention Time (minutes)	: 6.204		
Quant Ion	: 54.00		
Area (flag)	: 122359M		
On-Column Amount (ng)	: 68.2101		
Integration start scan	: 750	Integration stop scan:	781
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

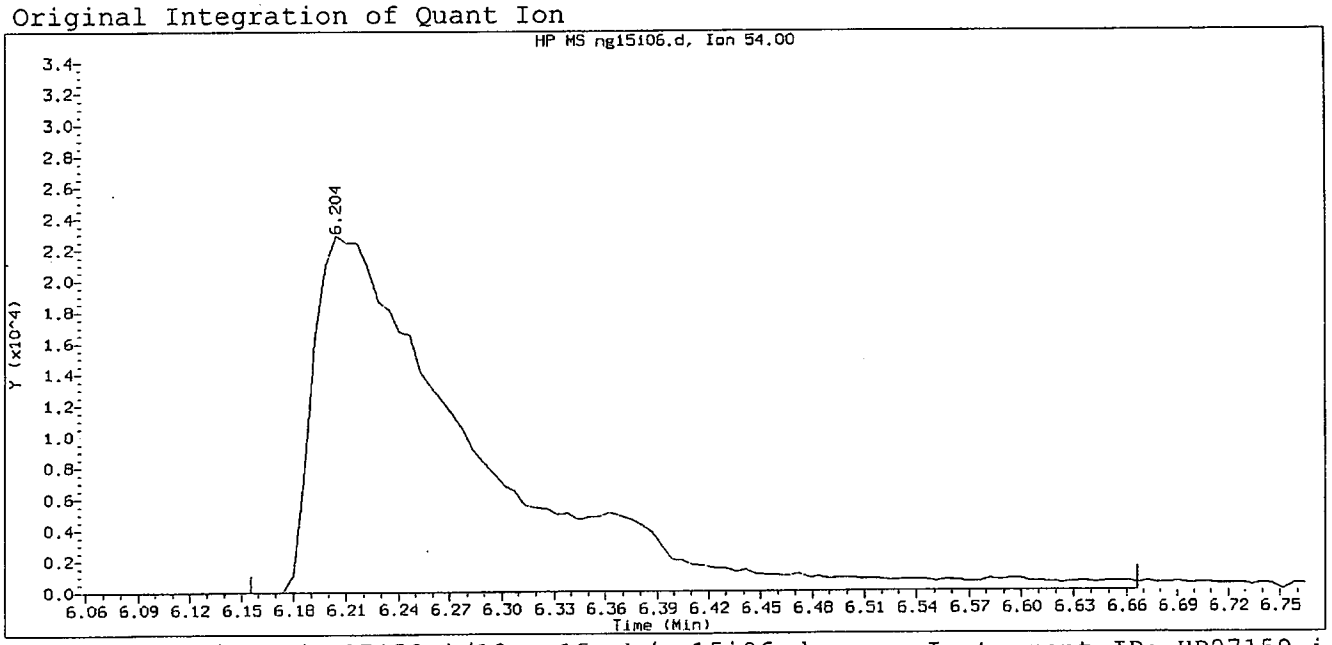
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 14:11 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 45		
Compound Name	: Propionitrile		
Scan Number	: 759		
Retention Time (minutes)	: 6.204		
Quant Ion	: 54.00		
Area	: 149553		
On-column Amount (ng)	: 85.9733		
Integration start scan	: 750	Integration stop scan:	834
Y at integration start	: 0	Y at integration end:	0

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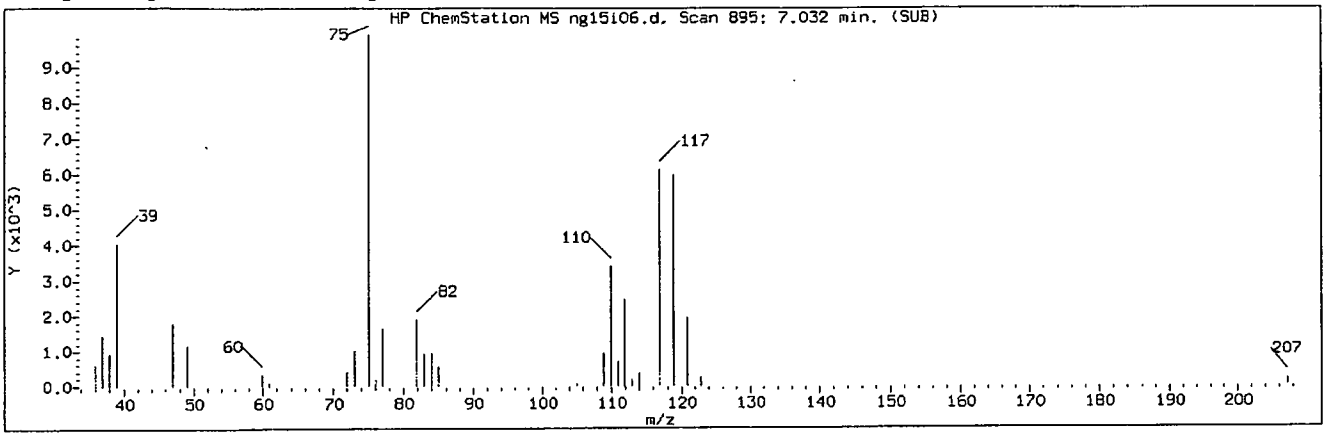
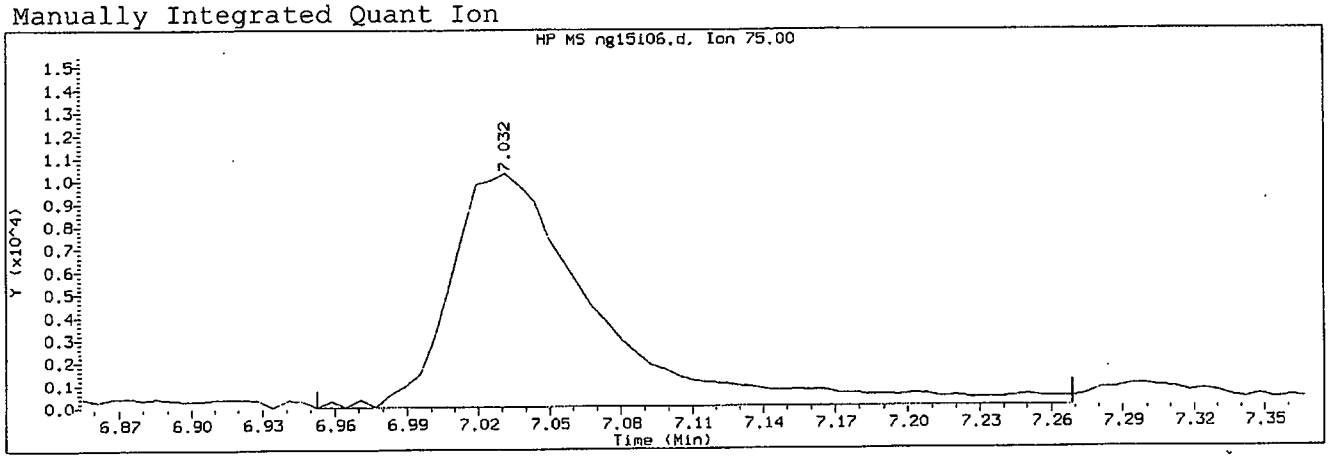
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004 Lab Sample ID: VSTD004

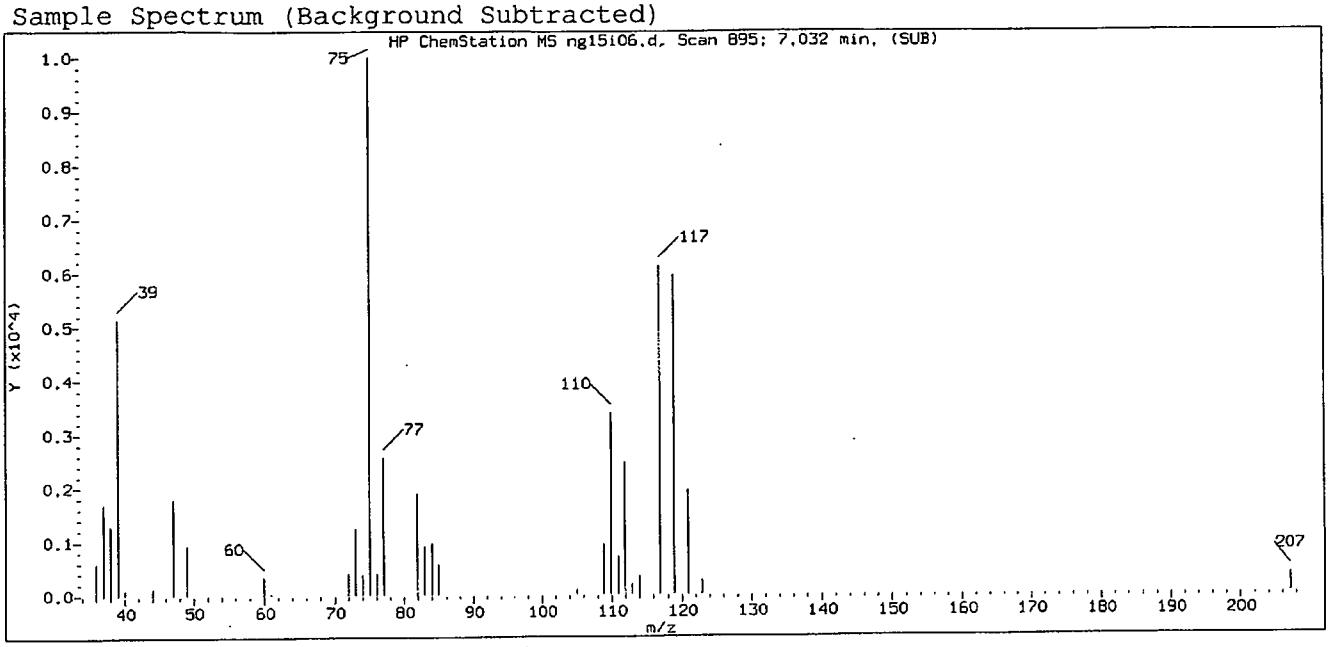
Compound Number	: 58		
Compound Name	: 1,1-Dichloropropene		
Scan Number	: 895		
Retention Time (minutes)	: 7.032		
Quant Ion	: 75.00		
Area (flag)	: 44619M		
On-Column Amount (ng)	: 4.2386		
Integration start scan	: 881	Integration stop scan:	933
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

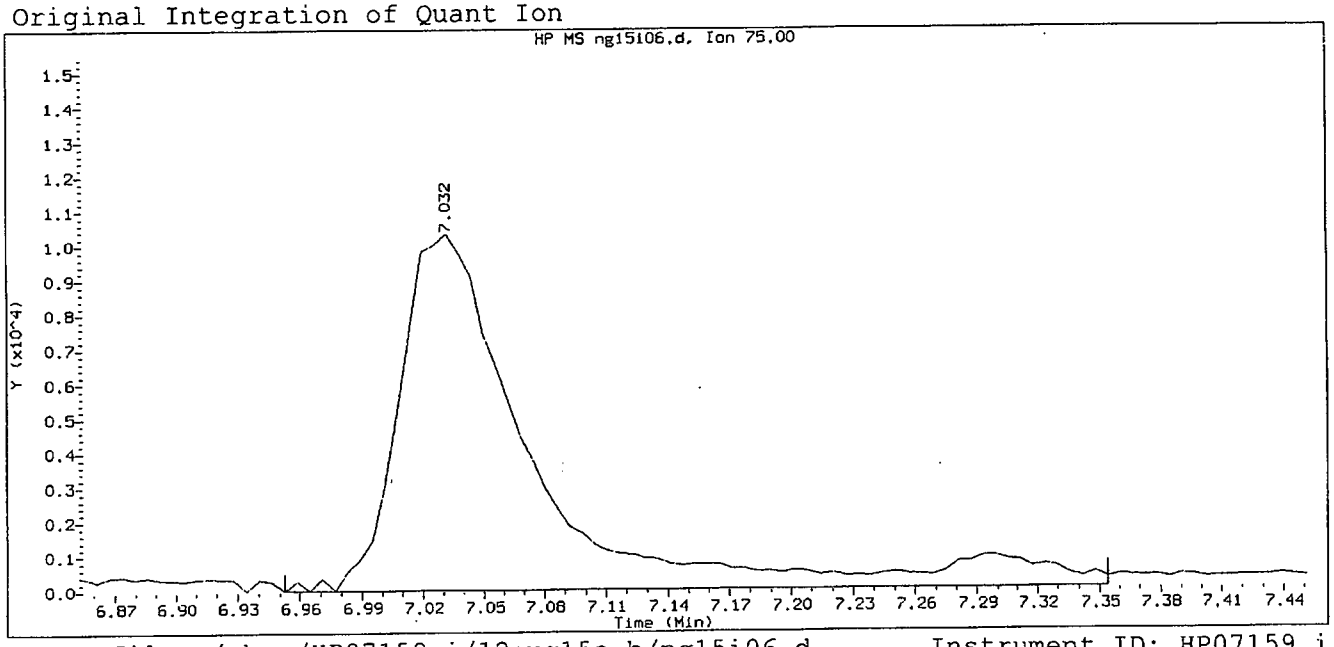
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:06 Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 14:11 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 58		
Compound Name	: 1,1-Dichloropropene		
Scan Number	: 895		
Retention Time (minutes)	: 7.032		
Quant Ion	: 75.00		
Area	: 47753		
On-column Amount (ng)	: 4.9557		
Integration start scan	: 881	Integration stop scan:	947
Y at integration start	: 0	Y at integration end:	0

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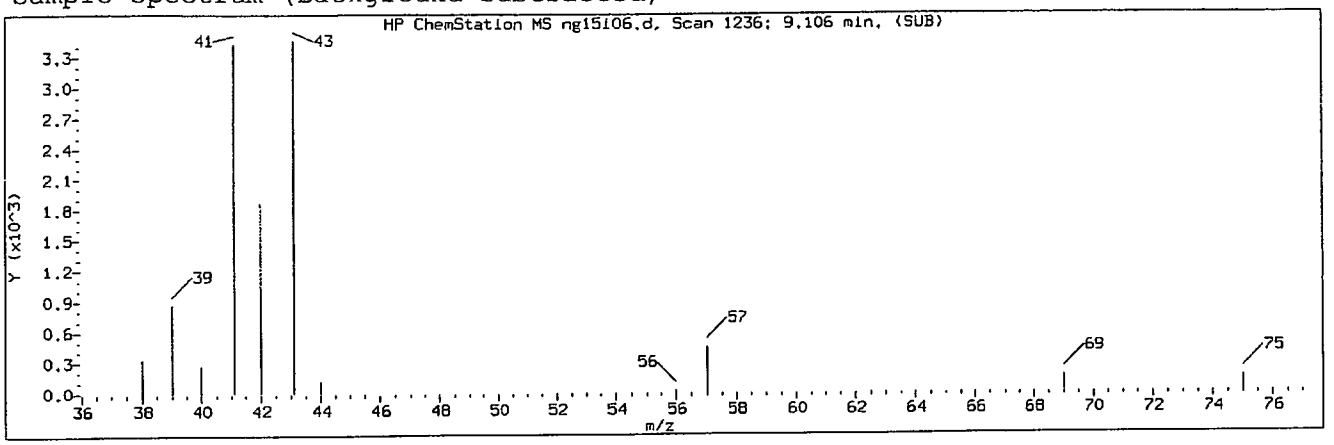
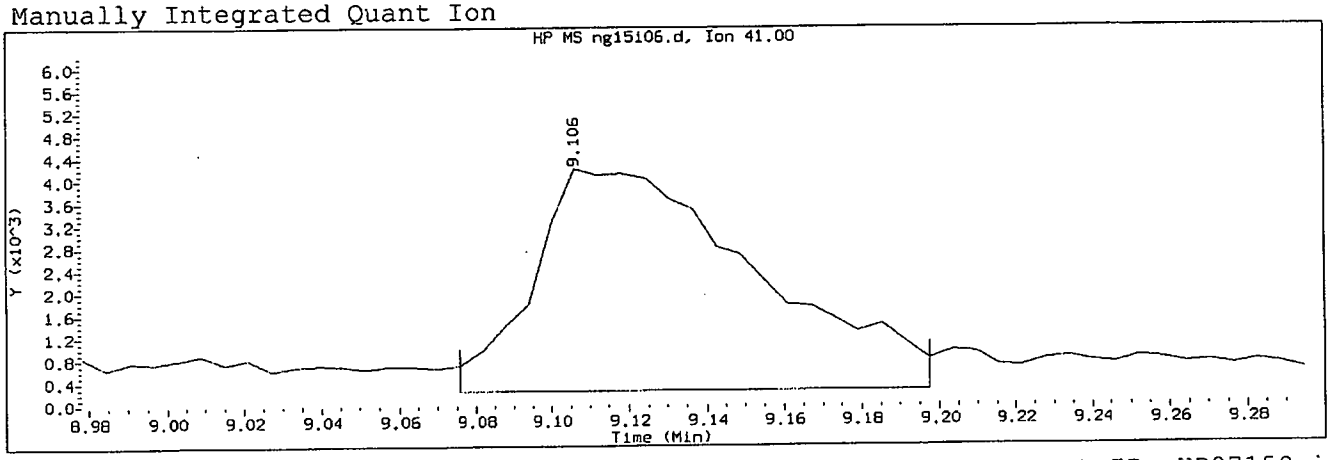
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 82		
Compound Name	: 2-Nitropropane		
Scan Number	: 1236		
Retention Time (minutes)	: 9.106		
Quant Ion	: 41.00		
Area (flag)	: 16099MA		
On-Column Amount (ng)	: 6.8369		
Integration start scan	: 1230	Integration stop scan:	1250
Y at integration start	: 227	Y at integration end:	227

Reason for manual integration: improper integration

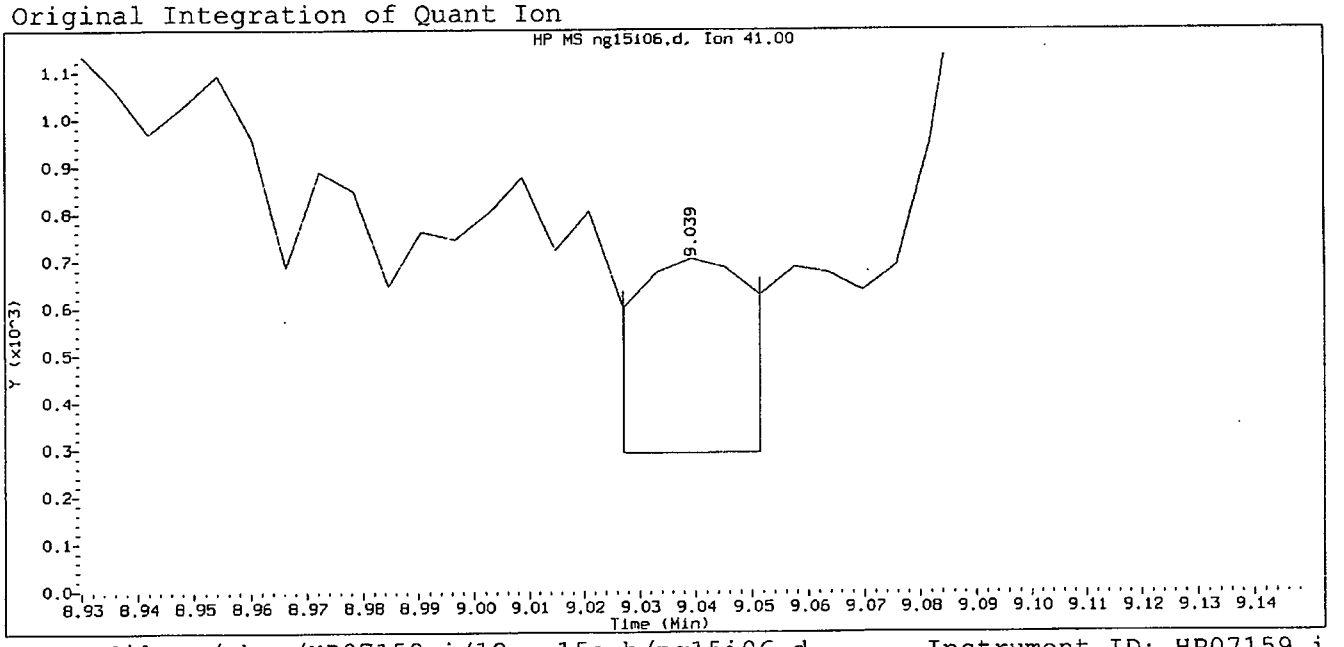
Analyst responsible for change: Digitally signed by Sarah A. Gull on 08/15/2012 at 19:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)

There is no spectral abundance to print at 9.156 minutes

Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 14:11 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 82		
Compound Name	: 2-Nitropropane		
Scan Number	: 1225		
Retention Time (minutes)	: 9.039		
Quant Ion	: 41.00		
Area	: 550		
On-column Amount (ng)	: 0.2890		
Integration start scan	: 1222	Integration stop scan:	1226
Y at integration start	: 290	Y at integration end:	290

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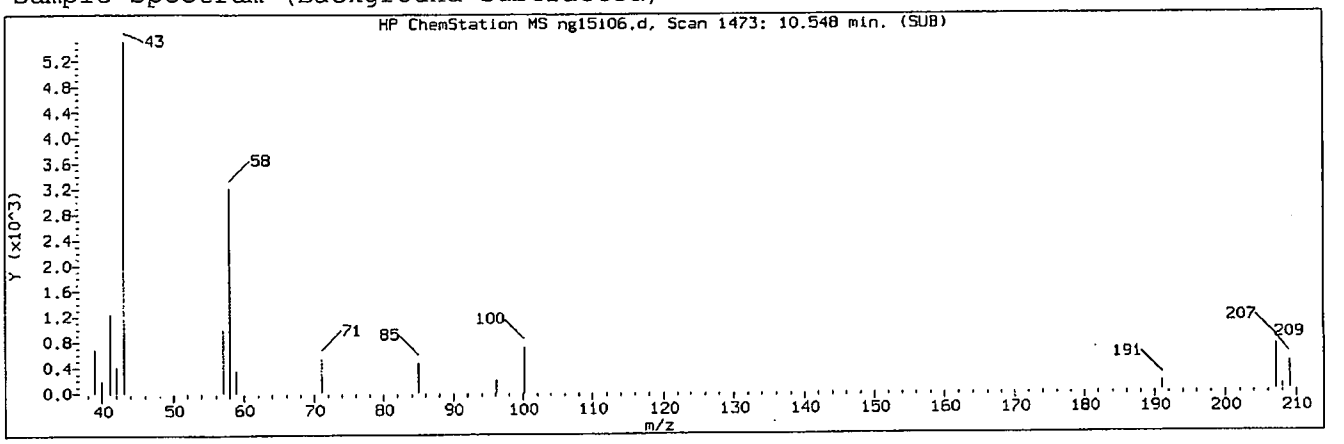
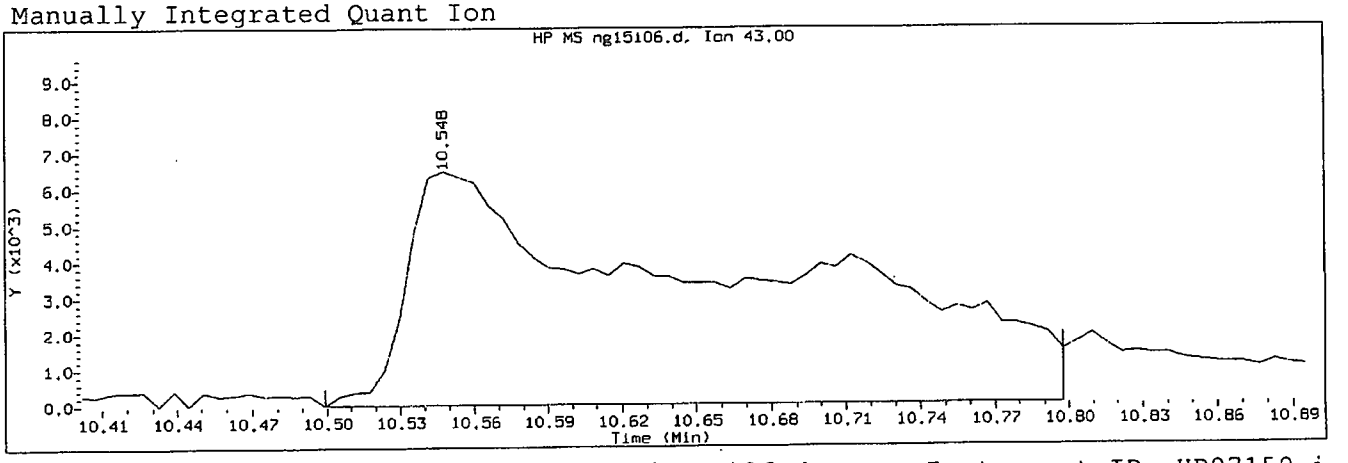
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004 Lab Sample ID: VSTD004

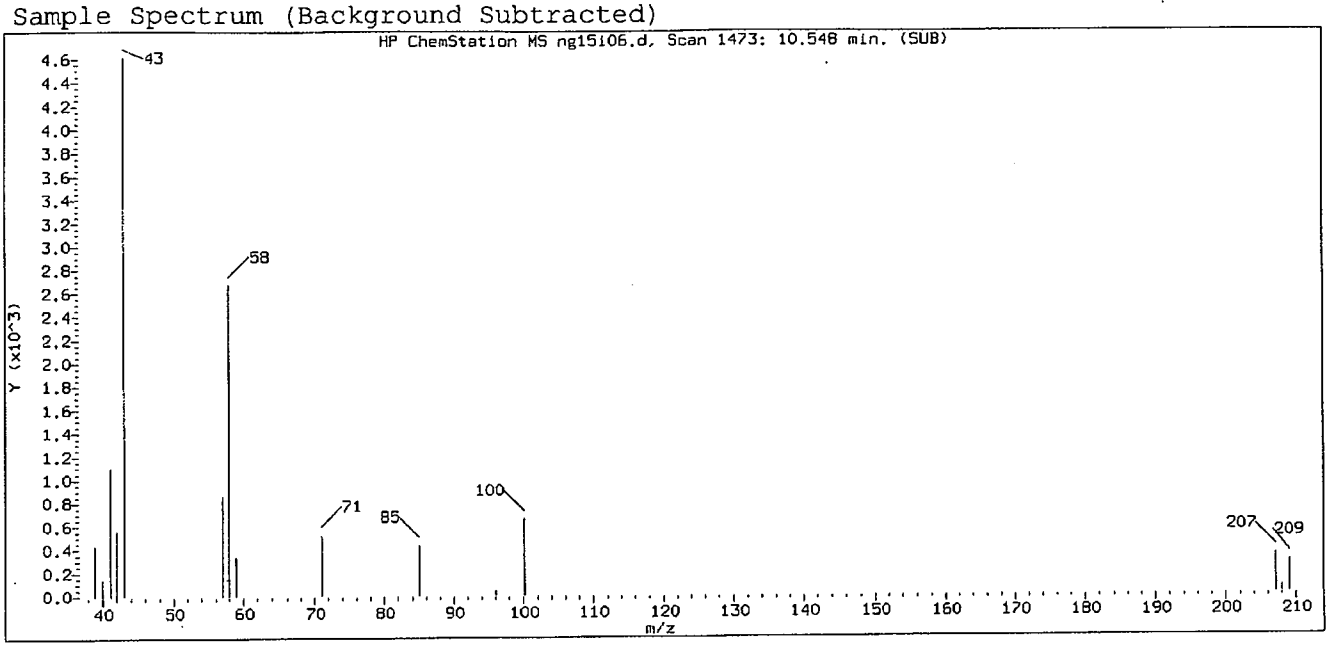
Compound Number	: 95		
Compound Name	: 2-Hexanone		
Scan Number	: 1473		
Retention Time (minutes)	: 10.548		
Quant Ion	: 43.00		
Area (flag)	: 61041M		
On-Column Amount (ng)	: 6.1769		
Integration start scan	: 1464	Integration stop scan:	1513
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

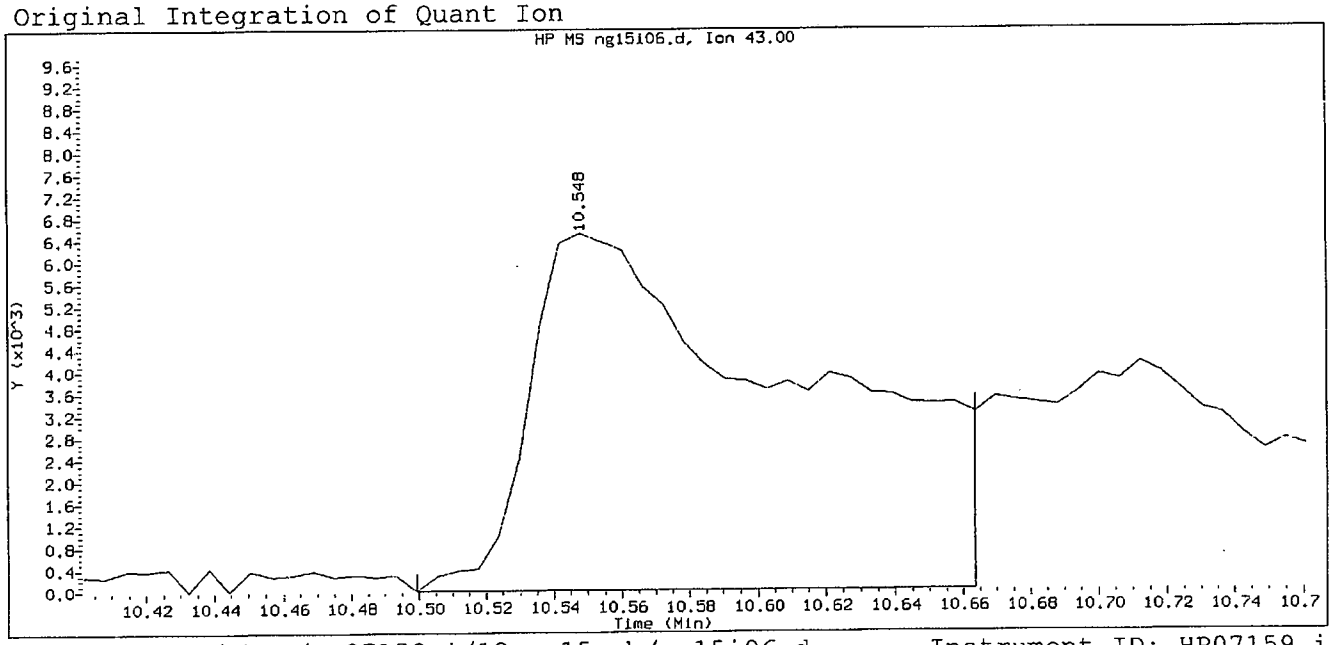
Analyst responsible for change: Digitally signed by Sarah A. Gull on 08/15/2012 at 19:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 14:11 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 95		
Compound Name	: 2-Hexanone		
Scan Number	: 1473		
Retention Time (minutes)	: 10.548		
Quant Ion	: 43.00		
Area	: 36234		
On-column Amount (ng)	: 4.2158		
Integration start scan	: 1464	Integration stop scan:	1491
Y at integration start	: 0	Y at integration end:	0

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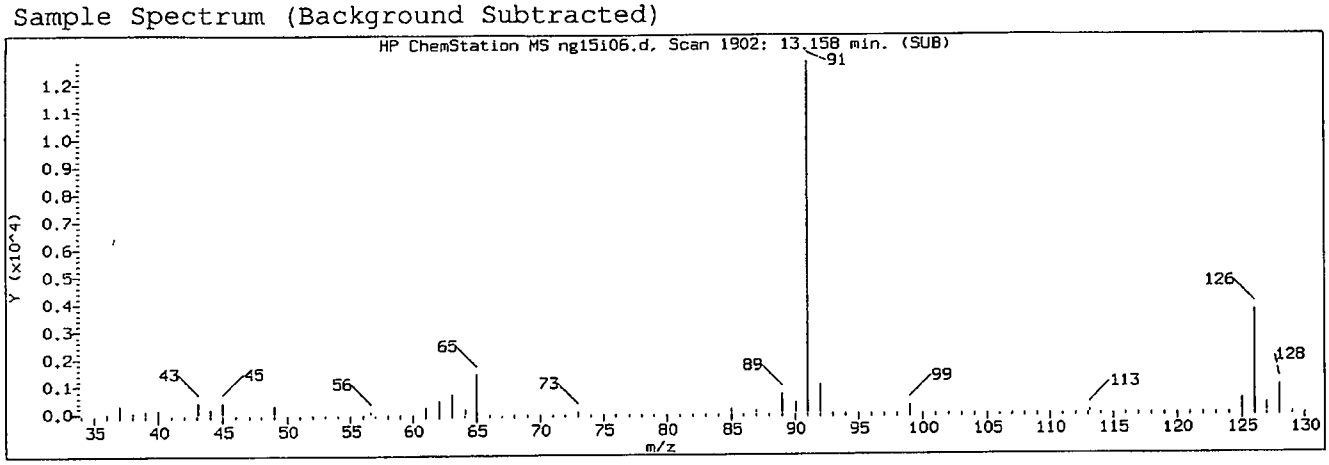
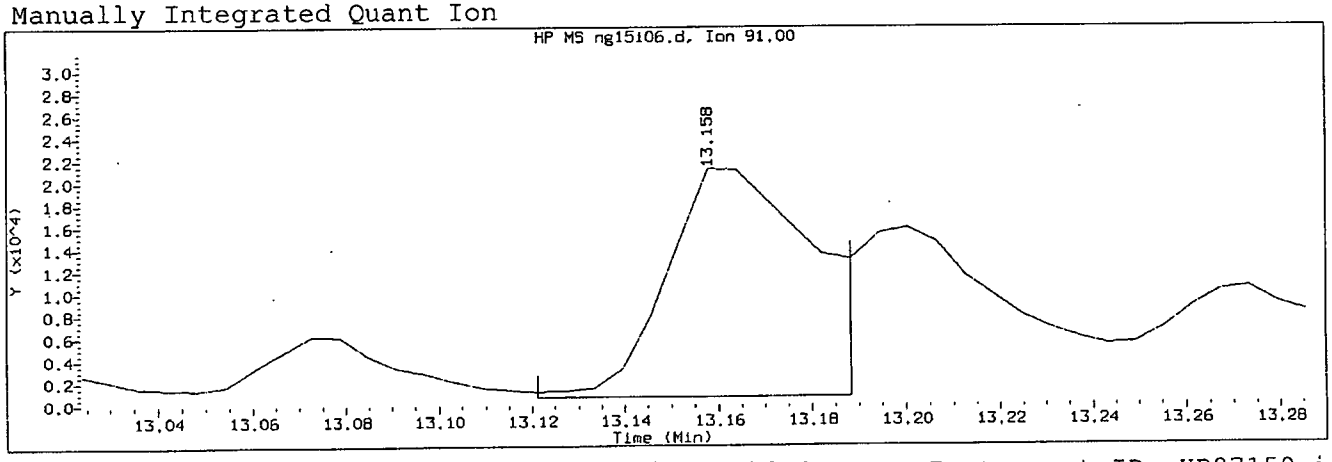
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 18:10 sag03174

Sample Name: VSTD004 Lab Sample ID: VSTD004

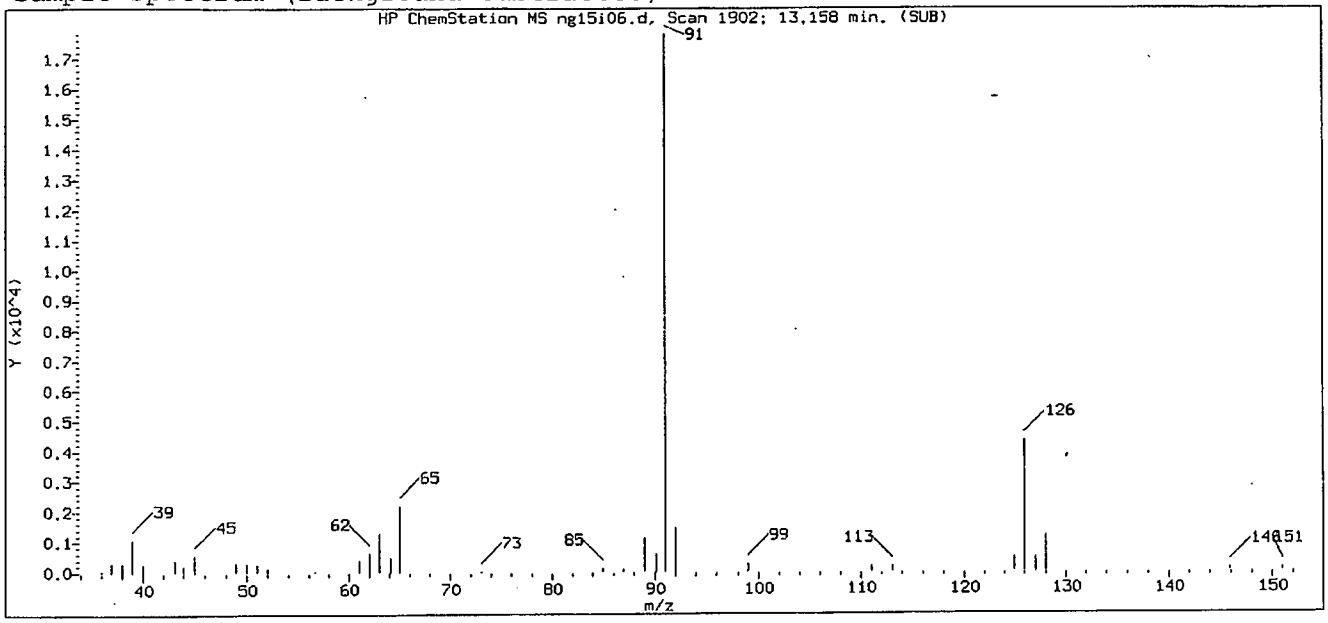
Compound Number	: 133		
Compound Name	: Benzyl Chloride		
Scan Number	: 1902		
Retention Time (minutes)	: 13.158		
Quant Ion	: 91.00		
Area (flag)	: 45660M		
On-Column Amount (ng)	: 2.1710		
Integration start scan	: 1895	Integration stop scan:	1906
Y at integration start	: 595	Y at integration end:	595

Reason for manual integration: improper integration

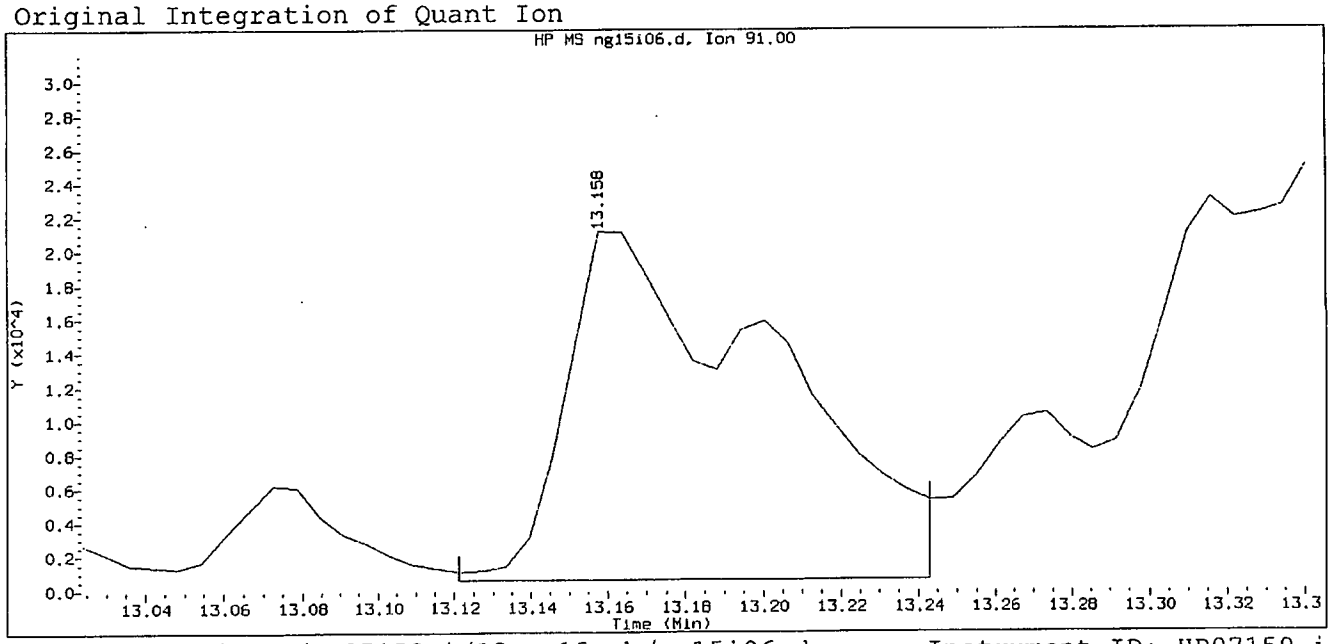
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/15/2012 at 19:06. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 685 8/16/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i06.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 13:51 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:11
Date, time and analyst ID of latest file update: 15-Aug-2012 14:11 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 133		
Compound Name	: Benzyl Chloride		
Scan Number	: 1902		
Retention Time (minutes)	: 13.158		
Quant Ion	: 91.00		
Area	: 76542		
On-column Amount (ng)	: 3.5153		
Integration start scan	: 1895	Integration stop scan:	1915
Y at integration start	: 595	Y at integration end:	595

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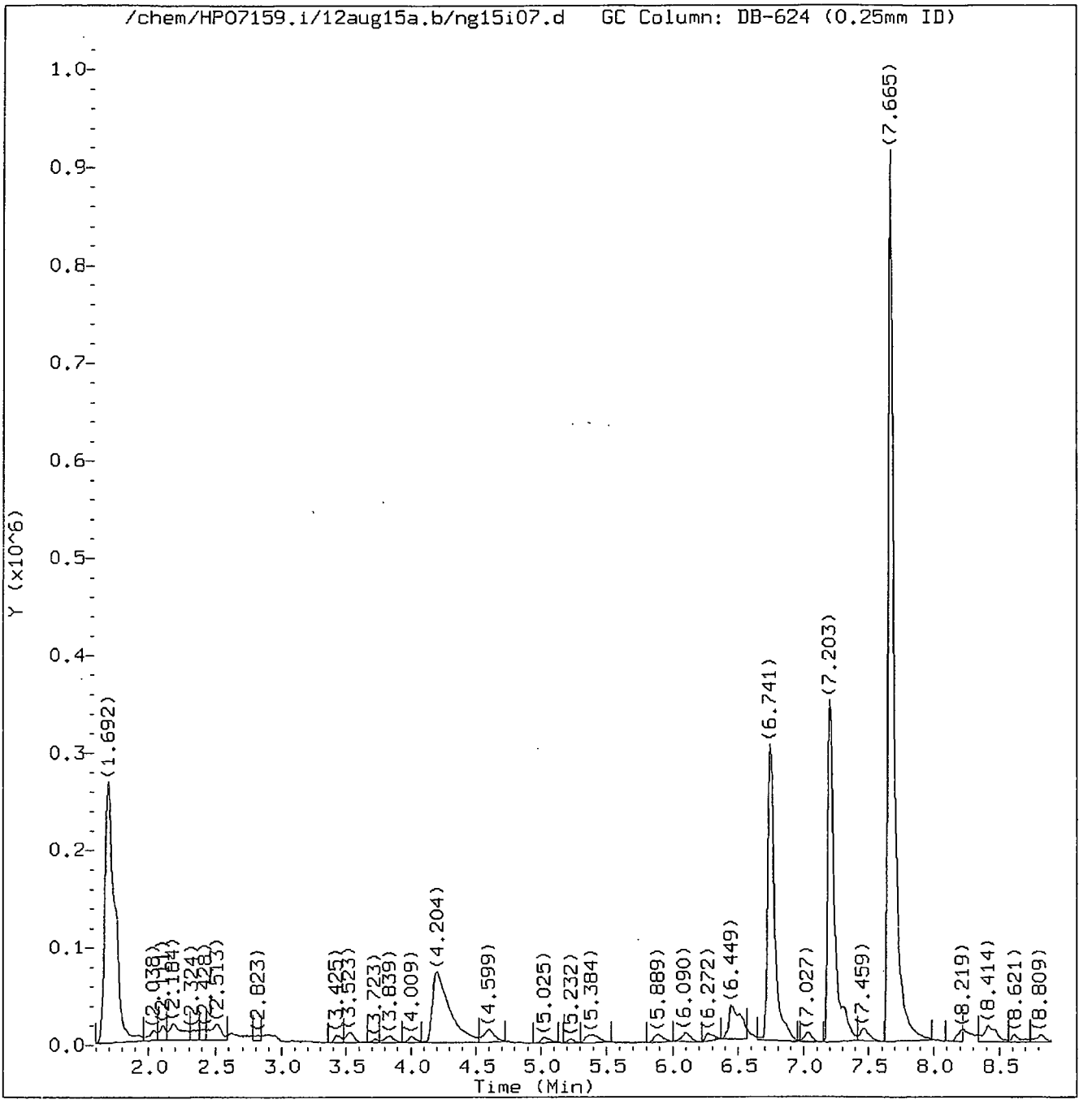
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

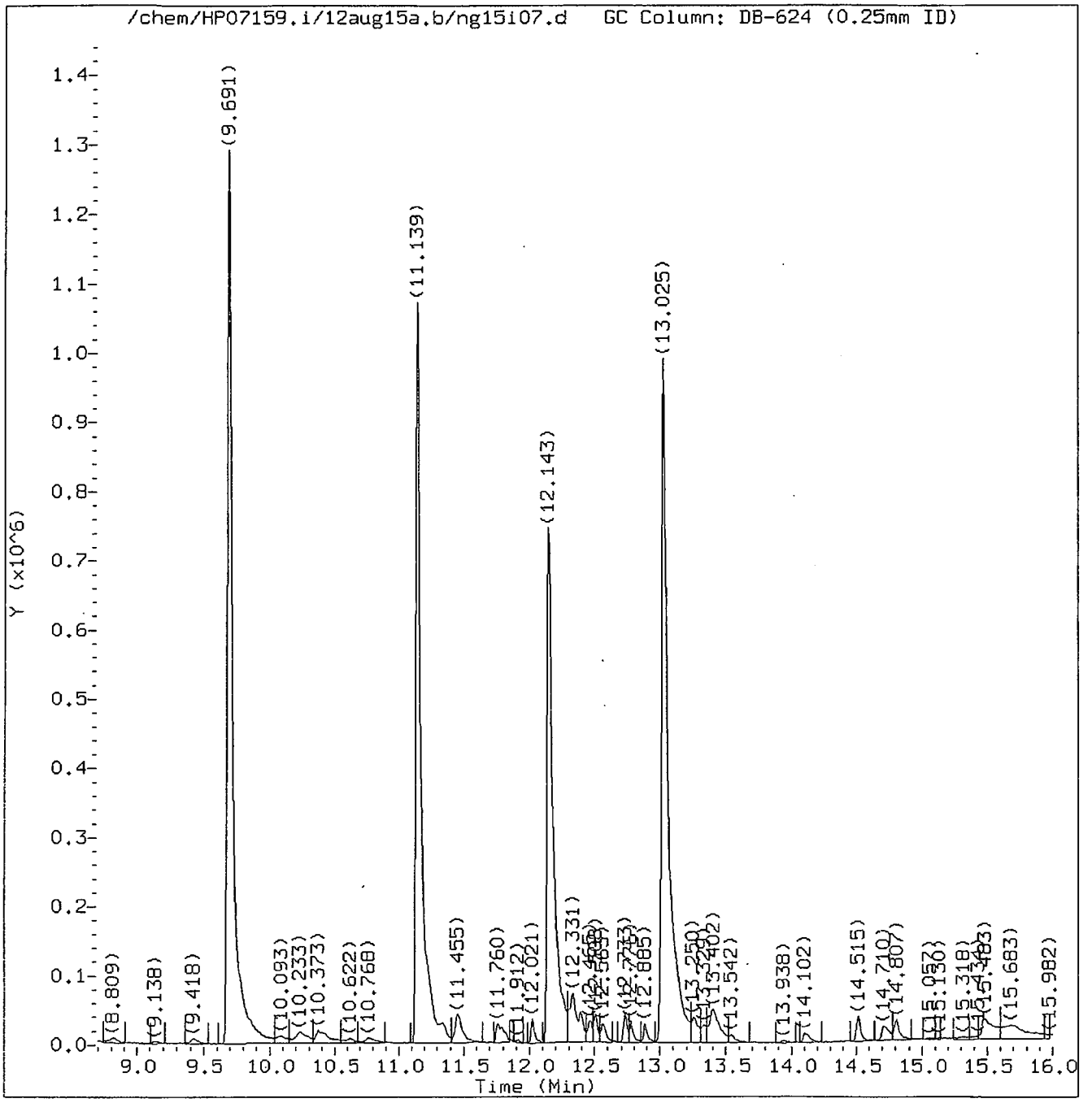
Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Sarah A Gulli
on 08/16/2012 at 20:05.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Sarah A. Guill
on 08/16/2012 at 20:05
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.917	85	8052	0.819
3) Chloromethane	(1)	2.032	50	7804M	0.892
4) Vinyl Chloride	(1)	2.184	62	7993	0.902
5) Bromomethane	(1)	2.513	94	5404	1.008
7) Chloroethane	(1)	2.628	64	4304	0.949
8) Trichlorofluoromethane	(1)	2.951	101	8070	0.819
12) Ethanol	(4)	3.127	45	13522	104.930
13) Acrolein	(4)	3.425	56	22438	8.992
16) 1,1-Dichloroethene	(1)	3.529	96	5357	0.881
18) Freon 113	(1)	3.535	101	4760	0.770
19) Acetone	(1)	3.669	58	750	0.598
20) Methyl Iodide	(1)	3.723	142	8913	0.829
21) 2-Propanol	(4)	3.809	45	20976	19.638
22) Carbon Disulfide	(1)	3.833	76	16511	0.803
23) Allyl Chloride	(1)	3.997	41	13370	1.041
24) Methyl Acetate	(1)	4.119	43	10697	1.167
25) Methylene Chloride	(1)	4.161	84	7885	1.018
26)*t-Butyl Alcohol-d10	(4)	4.204	65	368544	250.000
27) t-Butyl Alcohol	(4)	4.338	59	35440	19.965
30) Methyl Tertiary Butyl Ether	(1)	4.587	73	22094	0.899
29) trans-1,2-Dichloroethene	(1)	4.605	96	5666	0.809
28) Acrylonitrile	(1)	4.715	53	1568M	0.344
34) n-Hexane	(1)	5.025	57	7524	0.803
36) 1,1-Dichloroethane	(1)	5.238	63	10952	0.820
33) 1,2-Dichloroethene (total)	(1)		96	12709	1.688
37) di-Isopropyl Ether	(1)	5.372	45	22586	0.904
38) 2-Chloro-1,3-Butadiene	(1)	5.427	53	7718	0.720
39) Ethyl t-Butyl Ether	(1)	5.895	59	23392	0.958
44) 2,2-Dichloropropane	(1)	6.084	77	8407	0.870
40) cis-1,2-Dichloroethene	(1)	6.114	96	7043	0.879
45) Propionitrile	(4)	6.260	54	36620	19.517
42) 2-Butanone	(1)	6.260	43	10799	1.824
48) Bromochloromethane	(1)	6.418	128	3182	0.774
47) Methacrylonitrile	(1)	6.443	67	43070	8.471
50) Chloroform	(1)	6.516	83	12541M	0.995
49) Tetrahydrofuran	(4)	6.540	71	2424	1.401
52)$Dibromofluoromethane(mz111)	(1)	6.741	111	339187	49.697
51)$Dibromofluoromethane	(1)	6.741	113	331145	49.560

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 08/16/2012 at 20:05
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(1)	6.771	97	9236	0.891
56) Cyclohexane	(1)	6.850	56	10223	0.788
55) Cyclohexane (mz 69)	(1)	6.862	69	4234	1.042
54) Cyclohexane (mz 84)	(1)	6.862	84	8866	0.821
59) Carbon Tetrachloride	(1)	7.021	117	5498	0.723
58) 1,1-Dichloropropene	(1)	7.033	75	11849	1.110
62)$1,2-Dichloroethane-d4	(1)	7.197	102	88807	49.692
64)$1,2-Dichloroethane-d4(mz104)	(1)	7.203	104	56710	49.974
63)$1,2-Dichloroethane-d4(mz65)	(1)	7.203	65	392506	49.997
61) Isobutyl Alcohol	(4)	7.252	41	25838	45.819
65) Benzene	(1)	7.313	78	27277	0.888
66) 1,2-Dichloroethane	(1)	7.319	62	8425	0.866
68) t-Amyl Methyl Ether	(1)	7.471	73	20962	0.889
70)*Fluorobenzene	(1)	7.665	96	1494775	50.000
67) 1,2-Dichloroethane (mz 98)	(1)	7.665	98	2305	2.297
69) n-Heptane	(1)	7.690	43	11496	1.289
74) Trichloroethene	(1)	8.183	95	6606	0.870
71) n-Butanol	(4)	8.249	56	24323	27.308
75) Methylcyclohexane	(1)	8.414	83	9644	0.765
76) 1,2-Dichloropropane	(1)	8.468	63	7303	0.860
78) Dibromomethane	(1)	8.608	93	4232	0.823
80) 1,4-Dioxane	(4)	8.694	88	7234	52.800
77) Methyl Methacrylate	(1)	8.815	69	9049	1.055
81) Bromodichloromethane	(1)	8.821	83	6104	0.713
82) 2-Nitropropane	(4)	9.156	41	7722M	3.135
83) 2-Chloroethyl Vinyl Ether	(1)	9.326	63	2395	0.414
84) cis-1,3-Dichloropropene	(1)	9.424	75	9949	0.804
87)$Toluene-d8(mz100)	(2)	9.691	100	954711	47.940
85) 4-Methyl-2-Pentanone	(1)	9.691	43	14882A	1.167
86)$Toluene-d8	(2)	9.691	98	1439904	48.355
88) Toluene	(2)	9.789	92	17908	0.888
89) trans-1,3-Dichloropropene	(2)	10.081	75	9179	0.768
91) 1,1,2-Trichloroethane	(2)	10.233	97	7043	0.884
90) Ethyl Methacrylate	(2)	10.257	69	10692	0.732
95) 2-Hexanone	(2)	10.348	43	386	0.040
93) Tetrachloroethene	(2)	10.373	166	6199	0.805
94) 1,3-Dichloropropane	(2)	10.421	76	11883	0.858
96) Dibromochloromethane	(2)	10.616	129	4076	0.699

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 08/16/2012 at 20:05.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,2-Dibromoethane	(2)	10.774	107	6175	0.746
98)*Chlorobenzene-d5	(2)	11.139	117	1064322	50.000
100) Chlorobenzene	(2)	11.170	112	18660	0.837
101) 1,1,1,2-Tetrachloroethane	(2)	11.236	131	5077	0.734
102) Ethylbenzene	(2)	11.340	91	30477	0.826
103) m+p-Xylene	(2)	11.449	106	26215	1.749
104) Xylene (Total)	(2)		106	38777	2.602
106) o-Xylene	(2)	11.760	106	12562	0.853
109) Styrene	(2)	11.796	104	18267	0.742
110) Bromoform	(2)	11.912	173	2250	2.197
111) Isopropylbenzene	(2)	12.021	105	31412	0.863
115)$4-Bromofluorobenzene(mz174)	(2)	12.143	174	410499	48.414
112) Cyclohexanone	(4)	12.143	55	27988	50.492
114)$4-Bromofluorobenzene	(2)	12.143	95	533363	49.265
116) 1,1,2,2-Tetrachloroethane	(3)	12.258	83	11864	0.903
117) Bromobenzene	(3)	12.307	156	7777	0.845
119) 1,2,3-Trichloropropane	(3)	12.313	110	2754	0.749
118) trans-1,4-Dichloro-2-Butene	(3)	12.338	53	17298	5.305
120) n-Propylbenzene	(3)	12.392	91	32880A	0.809
121) 2-Chlorotoluene	(3)	12.465	126	7495	0.867
122) 1,3,5-Trimethylbenzene	(3)	12.508	105	27194	0.902
123) 4-Chlorotoluene	(3)	12.569	126	8149	0.862
124) tert-Butylbenzene	(3)	12.727	134	5175	0.786
125) Pentachloroethane	(3)	12.739	167	3300	0.626
126) 1,2,4-Trimethylbenzene	(3)	12.776	105	23294	0.762
127) sec-Butylbenzene	(3)	12.885	105	36190	1.019
129) 1,3-Dichlorobenzene	(3)	12.995	146	4719	0.304
130)*1,4-Dichlorobenzene-d4	(3)	13.025	152	572672	50.000
128) p-Isopropyltoluene	(3)	13.037	119	30313	1.003
131) 1,4-Dichlorobenzene	(3)	13.043	146	28330	1.442
133) Benzyl Chloride	(3)	13.116	91	2451	1.335
132) 1,2,3-Trimethylbenzene	(3)	13.122	105	28760	0.878
134) 1,3-Diethylbenzene	(3)	13.262	105	15044	0.806
135) 1,4-Diethylbenzene	(3)	13.341	105	12137A	0.681
137) 1,2-Dichlorobenzene	(3)	13.384	146	17015	0.955
138) 1,2-Diethylbenzene	(3)	13.396	105	26130M	0.000
136) n-Butylbenzene	(3)	13.408	92	14226	0.893
139) 1,2-Dibromo-3-Chloropropane	(3)	13.938	75	2423	0.805

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/16/2012 at 20:05
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
141) Hexachlorobutadiene	(3)	14.515	225	4166	0.984
140) 1,2,4-Trichlorobenzene	(3)	14.515	180	13190	1.082
142) Naphthalene	(3)	14.716	128	50435	1.107
144) 1,2,3-Trichlorobenzene	(3)	14.807	180	14178	1.158
145) 2-Methylnaphthalene	(3)	15.477	142	49771	1.863

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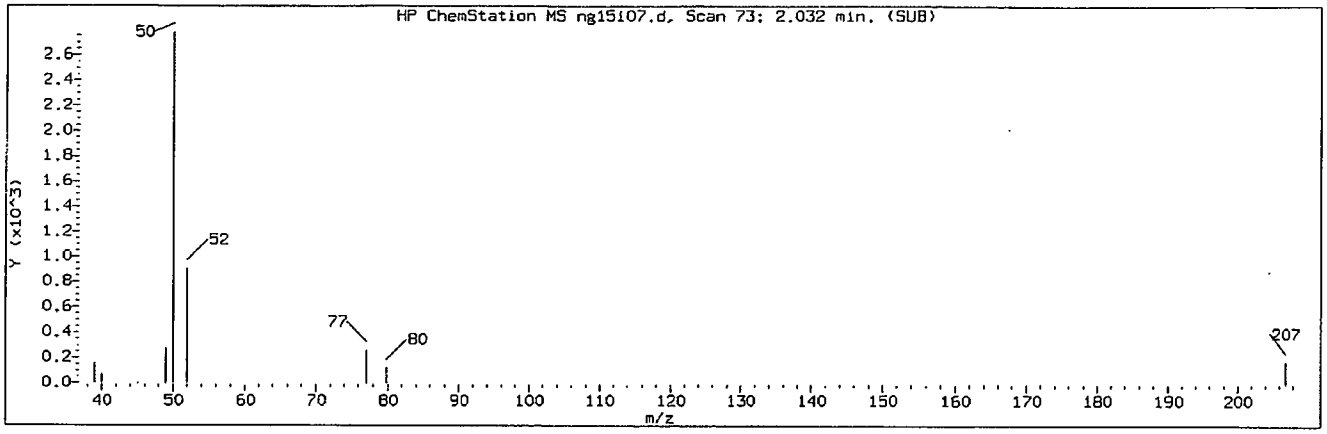
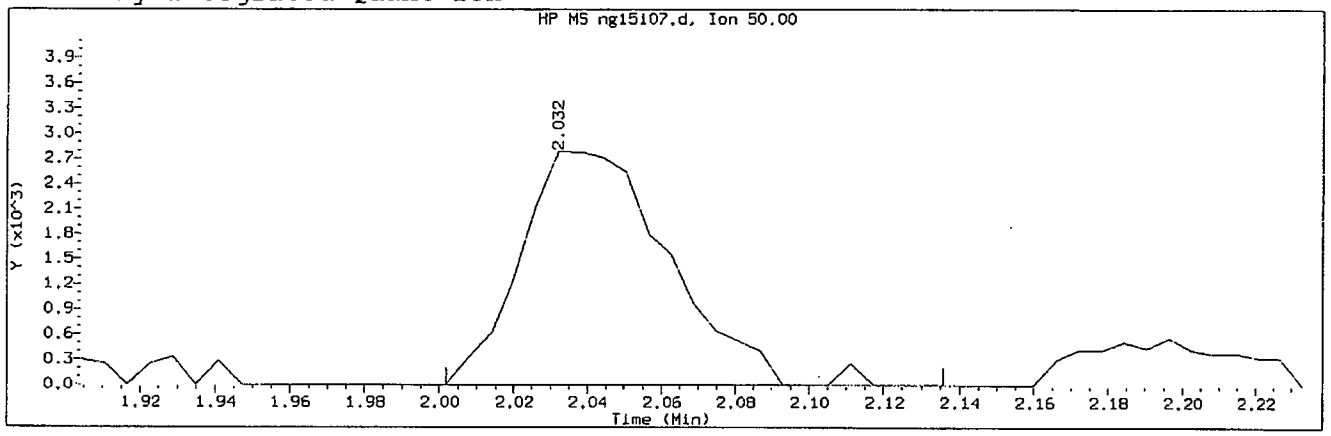
on 08/16/2012 at 20:05.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

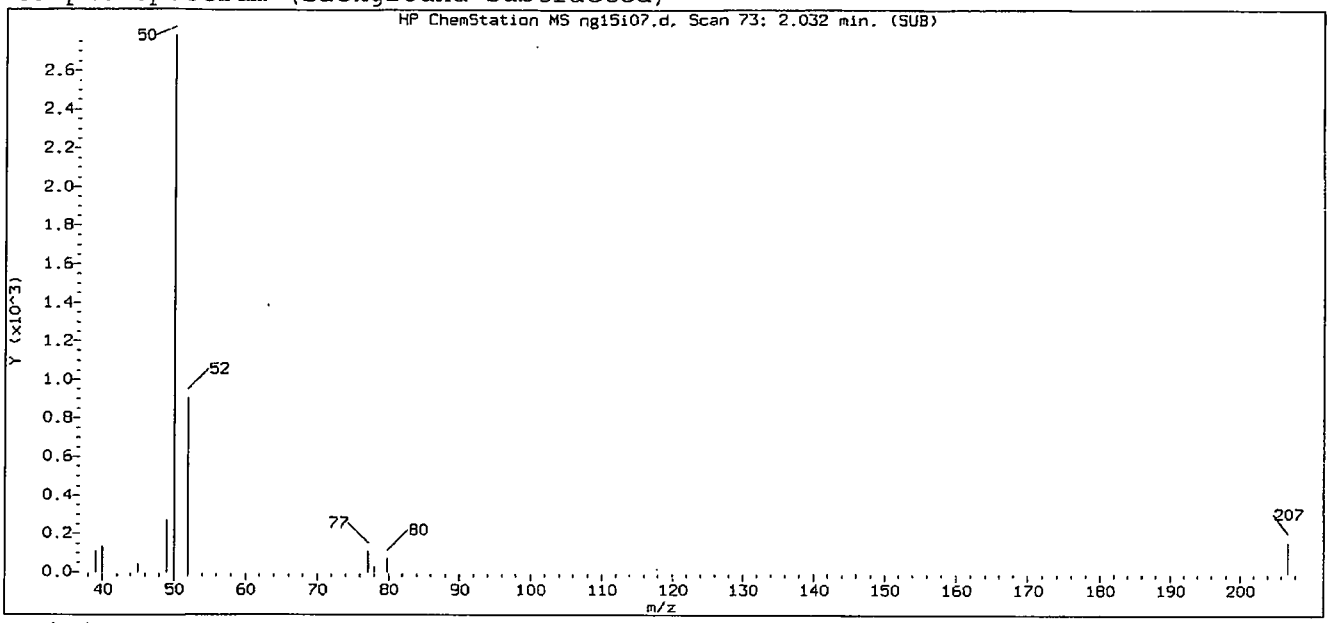
Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 73		
Retention Time (minutes)	: 2.032		
Quant Ion	: 50.00		
Area (flag)	: 7804M		
On-Column Amount (ng)	: 0.8918		
Integration start scan	: 67	Integration stop scan:	89
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

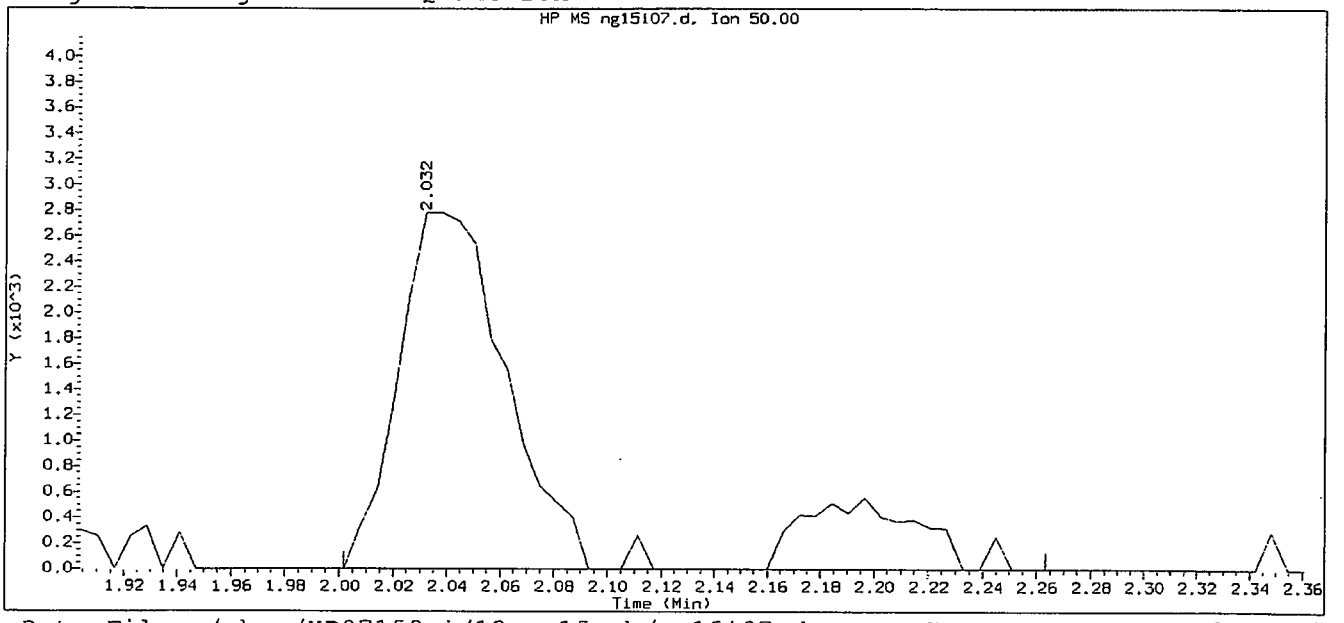
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:05. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:34
Date, time and analyst ID of latest file update: 15-Aug-2012 14:35 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 3		
Compound Name	: Chloromethane		
Scan Number	: 73		
Retention Time (minutes)	: 2.032		
Quant Ion	: 50.00		
Area	: 9529		
On-column Amount (ng)	: 1.1334		
Integration start scan	: 67	Integration stop scan:	110
Y at integration start	: 0	Y at integration end:	0

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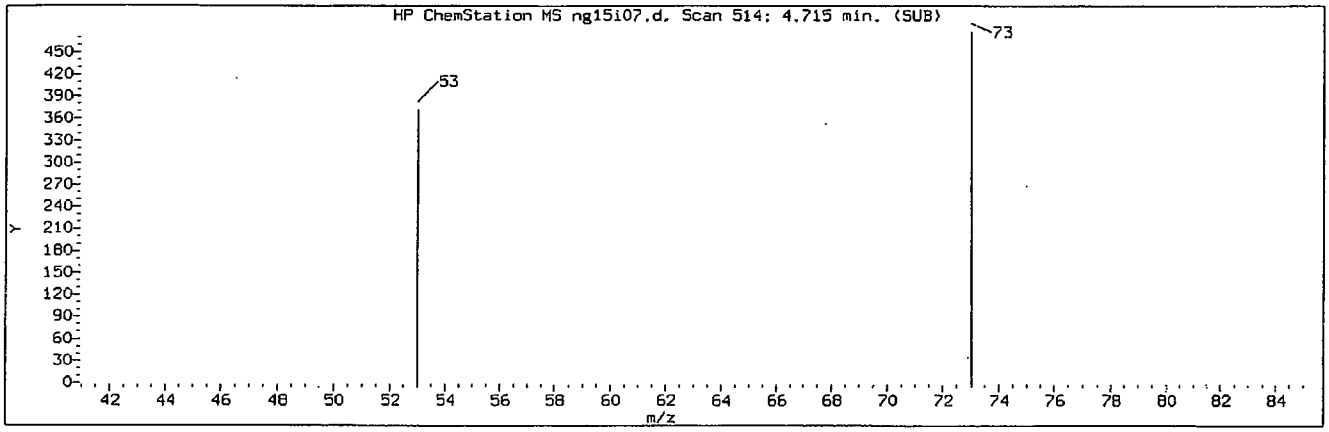
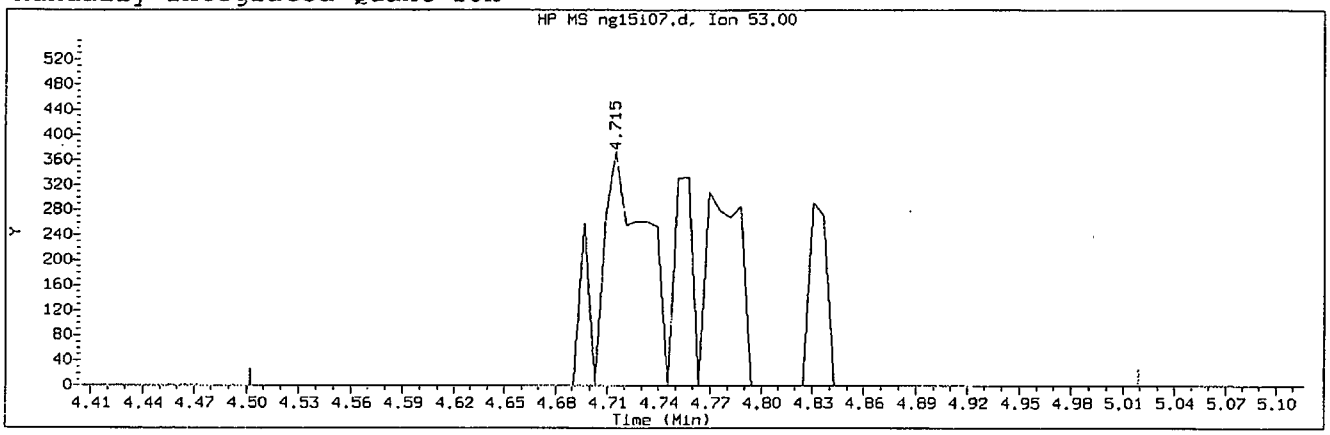
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

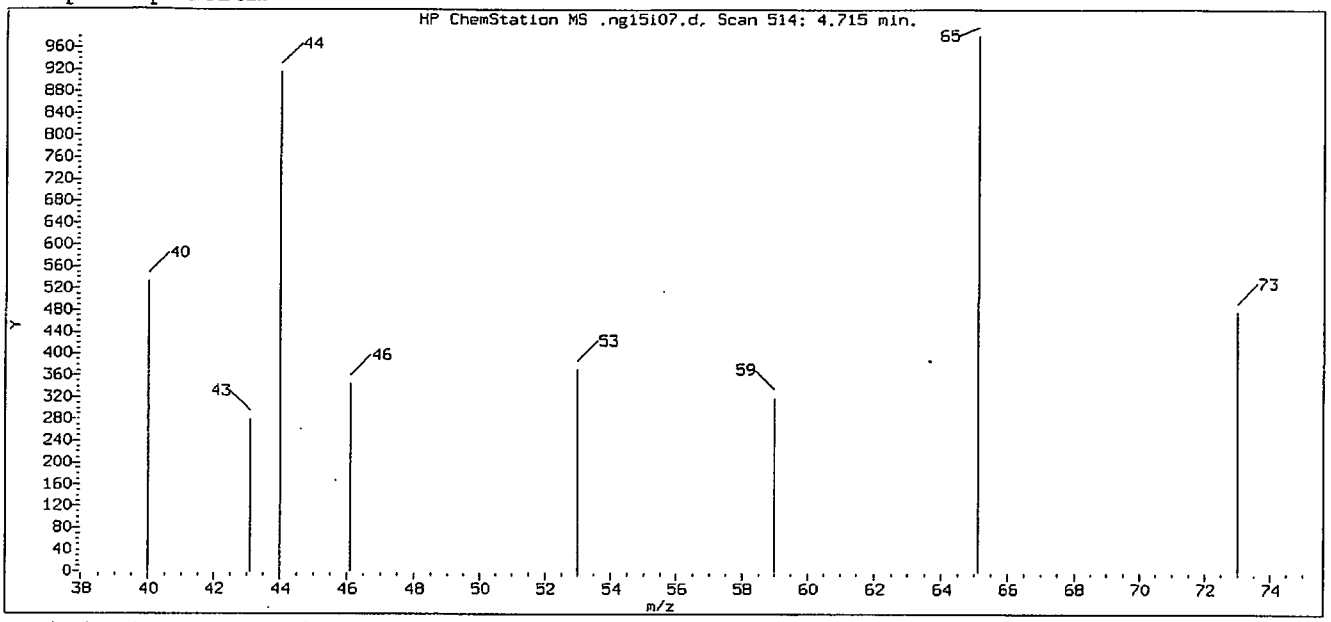
Compound Number	: 28		
Compound Name	: Acrylonitrile		
Scan Number	: 514		
Retention Time (minutes)	: 4.715		
Quant Ion	: 53.00		
Area (flag)	: 1568M		
On-Column Amount (ng)	: 0.3436		
Integration start scan	: 478	Integration stop scan:	563
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: missed peak

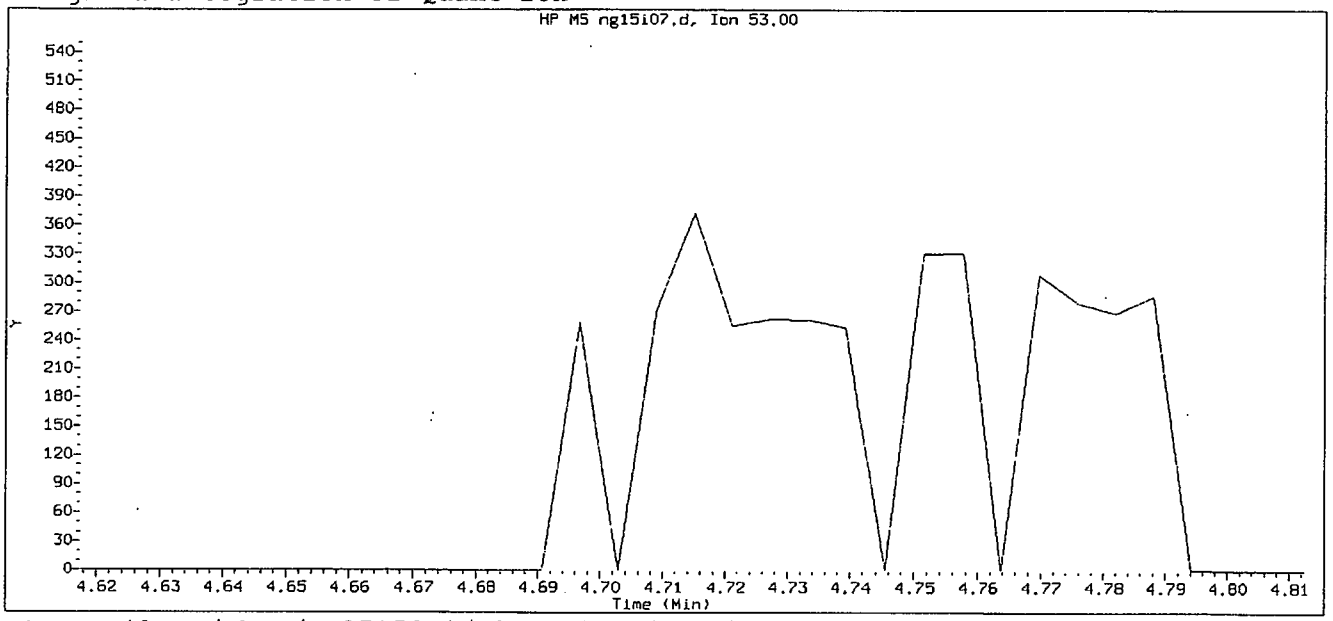
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:05. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:34
Date, time and analyst ID of latest file update: 15-Aug-2012 14:35 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 28
Compound Name : Acrylonitrile
Expected RT (minutes) : 4.715
Quant Ion : 53.00

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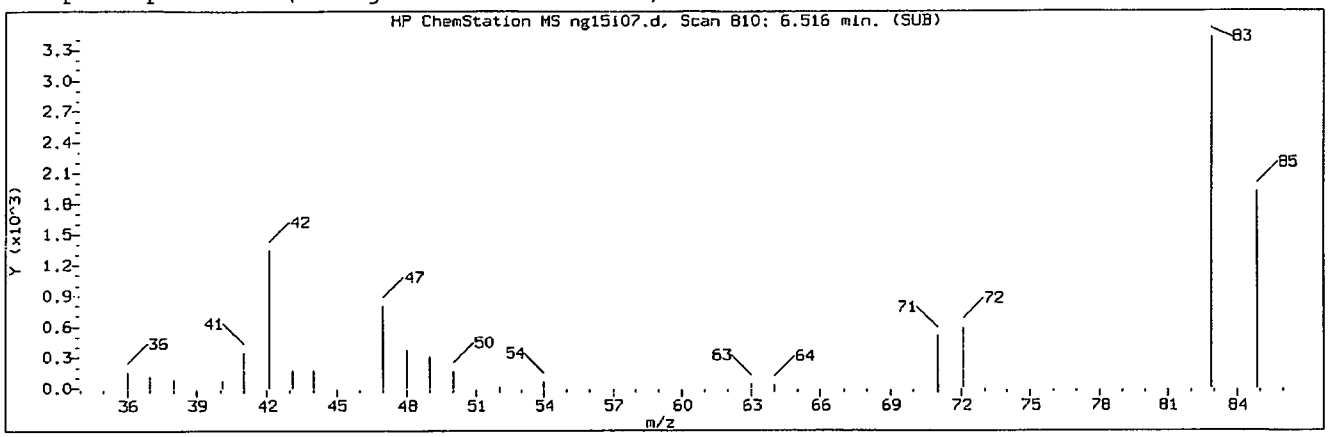
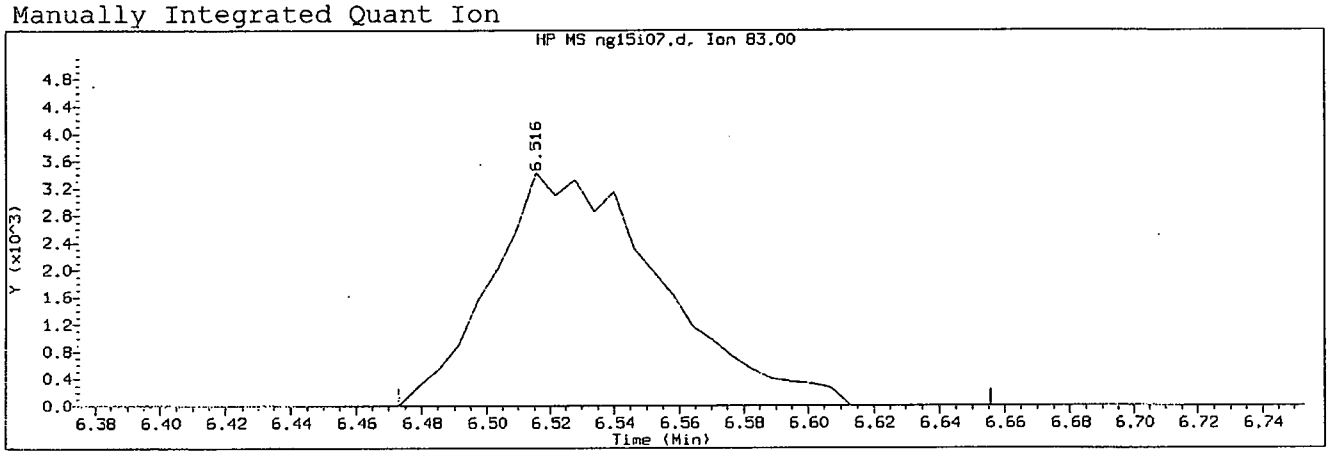
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

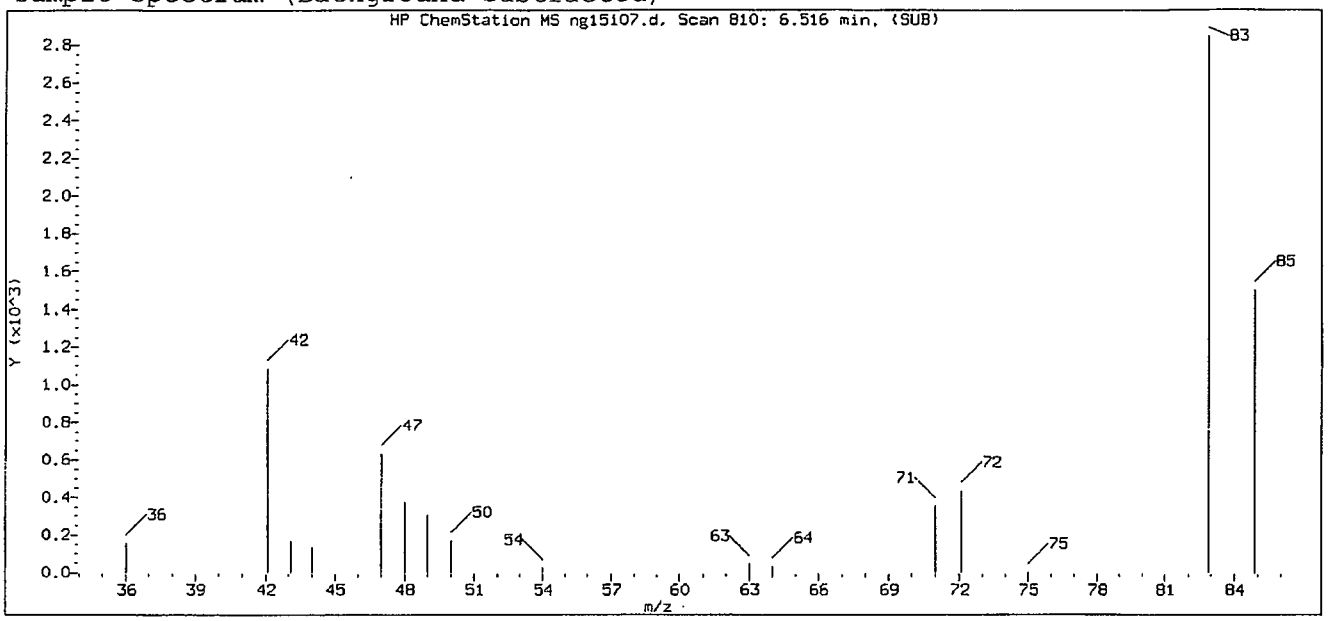
Compound Number	: 50		
Compound Name	: Chloroform		
Scan Number	: 810		
Retention Time (minutes)	: 6.516		
Quant Ion	: 83.00		
Area (flag)	: 12541M		
On-Column Amount (ng)	: 0.9949		
Integration start scan	: 802	Integration stop scan:	832
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

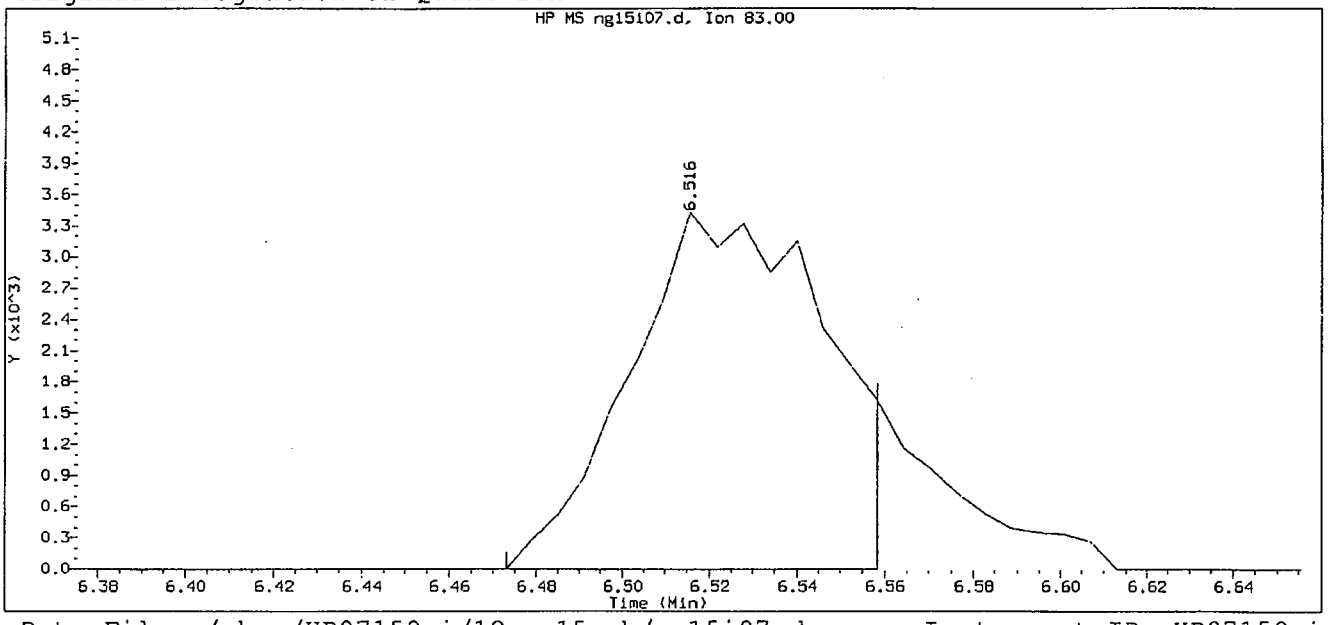
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:05. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:34
Date, time and analyst ID of latest file update: 15-Aug-2012 14:35 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 50		
Compound Name	: Chloroform		
Scan Number	: 810		
Retention Time (minutes)	: 6.516		
Quant Ion	: 83.00		
Area	: 10524		
On-column Amount (ng)	: 0.9143		
Integration start scan	: 802	Integration stop scan:	816
Y at integration start	: 0	Y at integration end:	0

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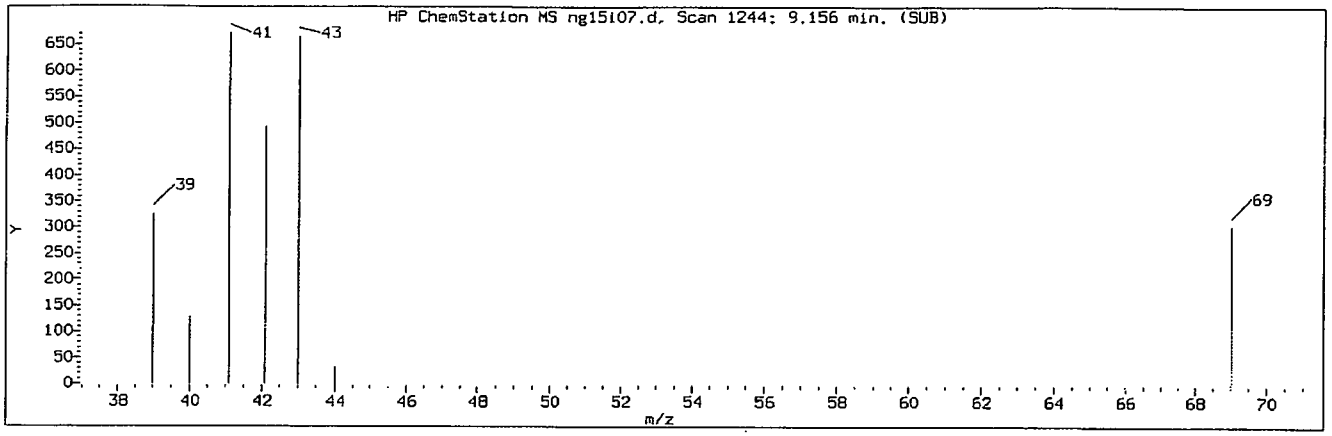
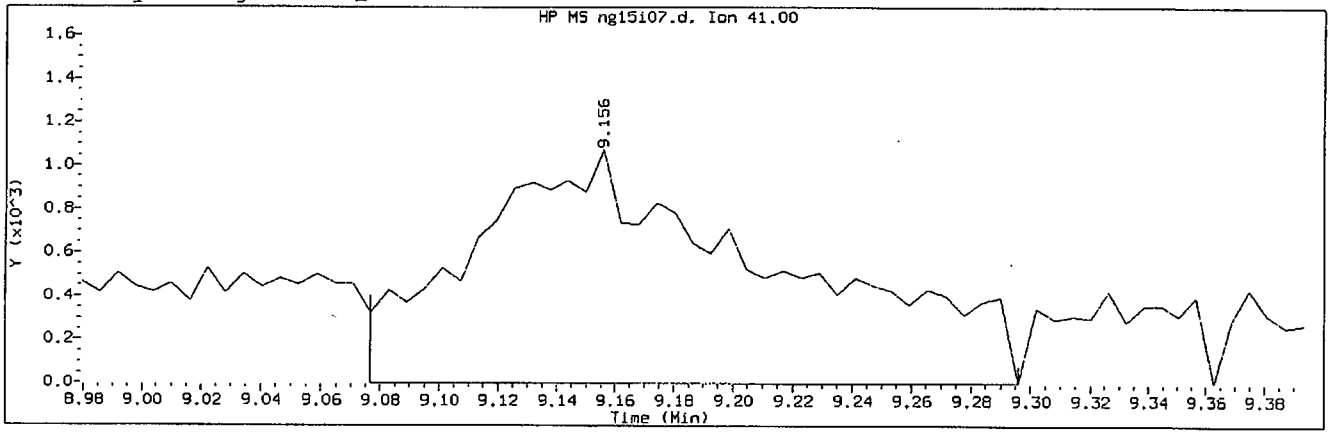
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

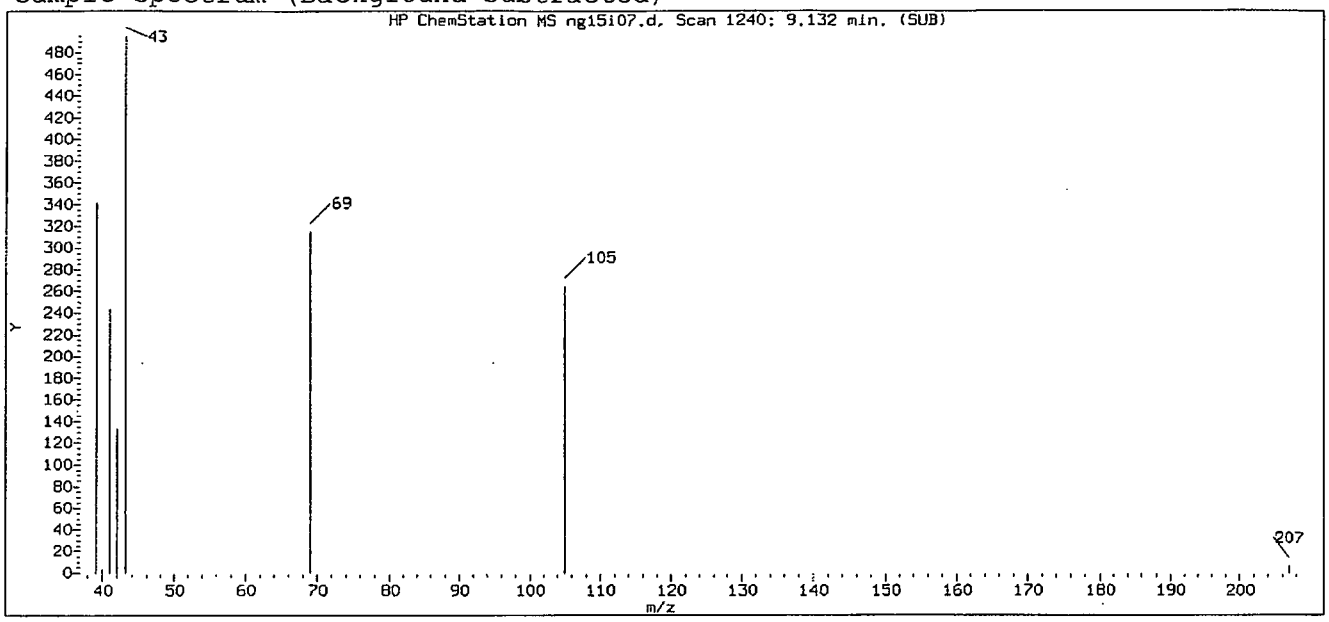
Compound Number	: 82		
Compound Name	: 2-Nitropropane		
Scan Number	: 1244		
Retention Time (minutes)	: 9.156		
Quant Ion	: 41.00		
Area (flag)	: 7722M		
On-Column Amount (ng)	: 3.1353		
Integration start scan	: 1230	Integration stop scan:	1266
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

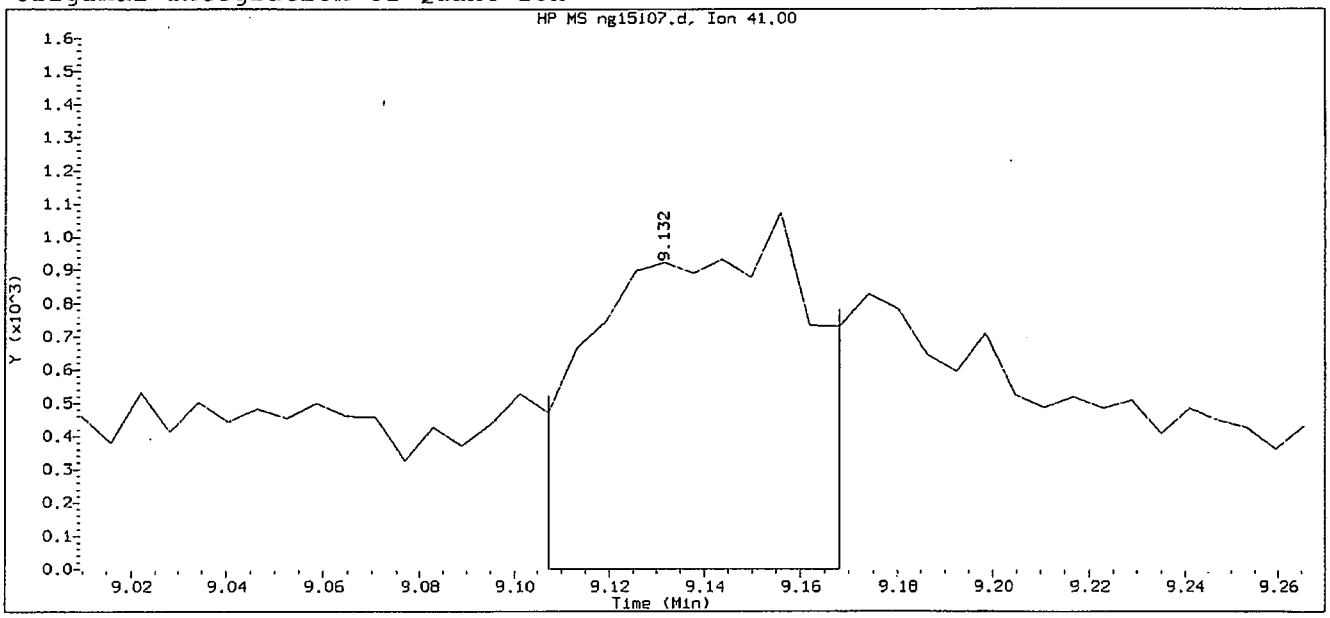
Analyst responsible for change: Digitally signed by Sarah A. Guill
on 08/16/2012 at 20:05
Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:34
Date, time and analyst ID of latest file update: 15-Aug-2012 14:35 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 82		
Compound Name	: 2-Nitropropane		
Scan Number	: 1240		
Retention Time (minutes)	: 9.132		
Quant Ion	: 41.00		
Area	: 3045		
On-column Amount (ng)	: 1.3065		
Integration start scan	: 1235	Integration stop scan:	1245
Y at integration start	: 0	Y at integration end:	0

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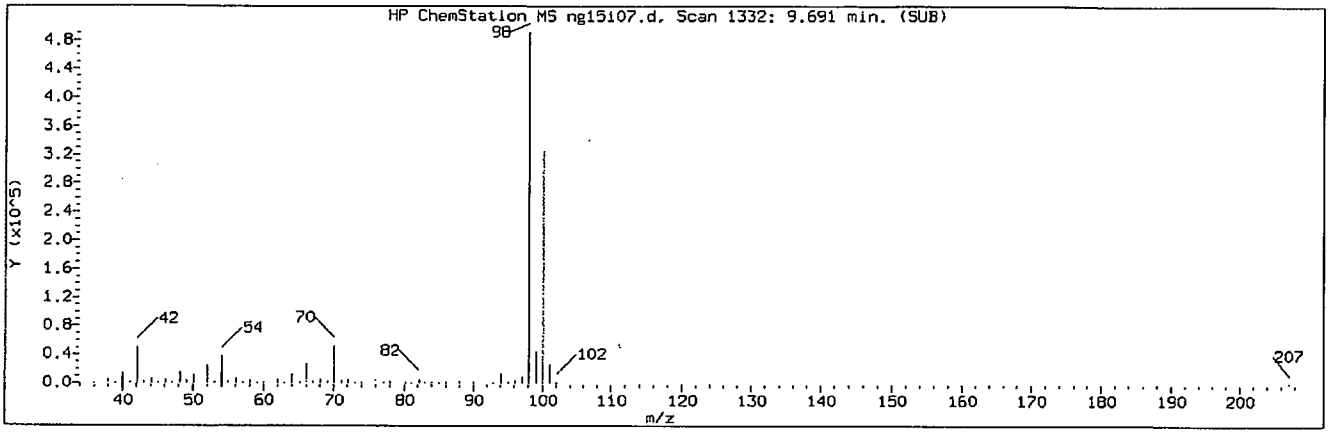
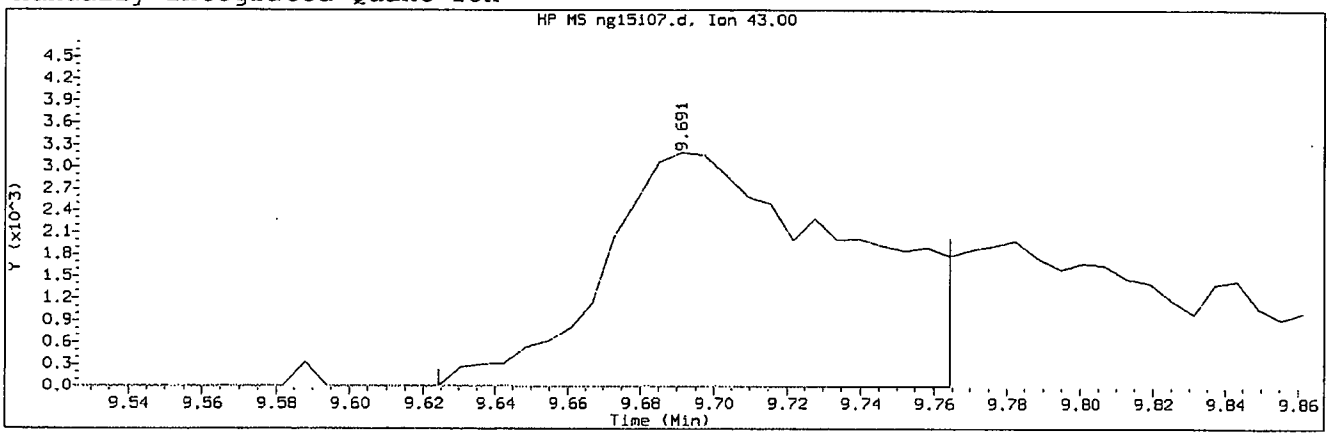
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

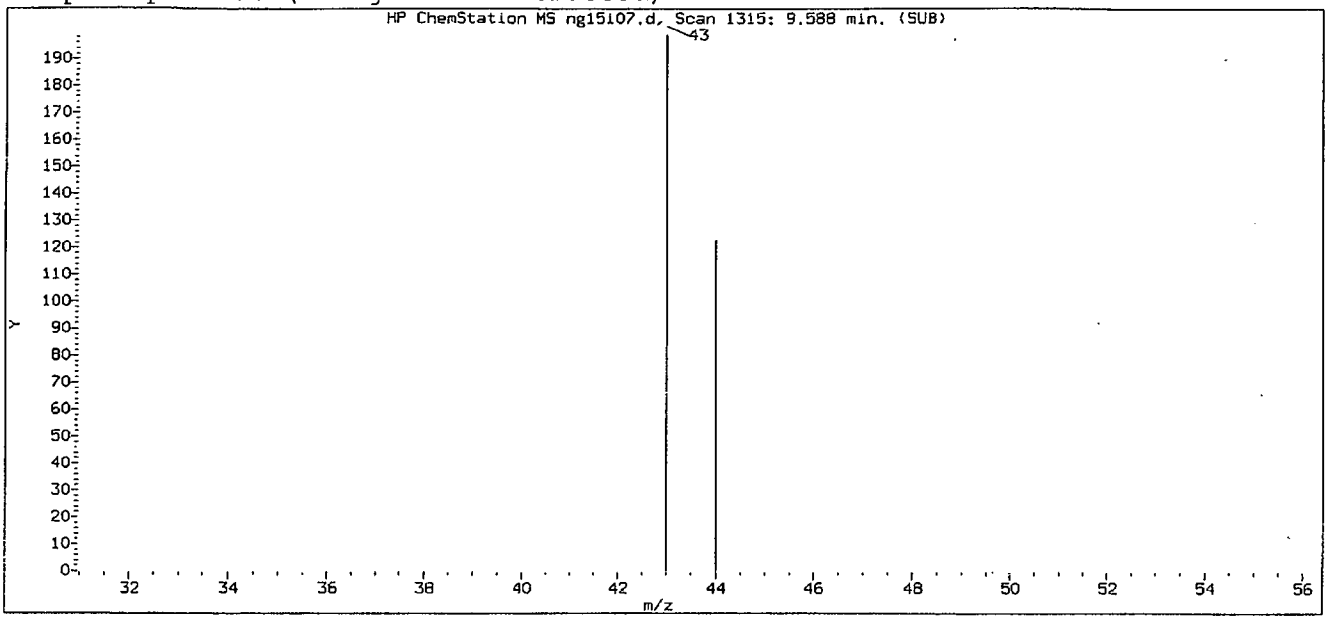
Compound Number	: 85		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 1332		
Retention Time (minutes)	: 9.691		
Quant Ion	: 43.00		
Area (flag)	: 14882A		
On-Column Amount (ng)	: 1.1671		
Integration start scan	: 1320	Integration stop scan:	1343
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

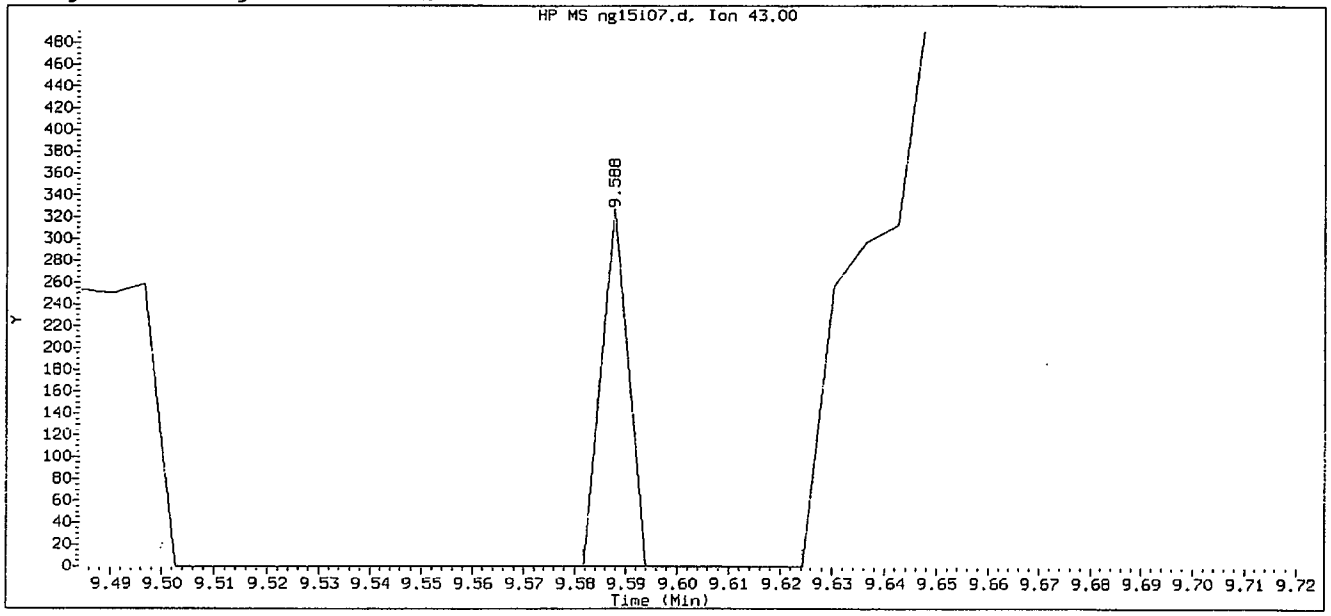
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:05. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

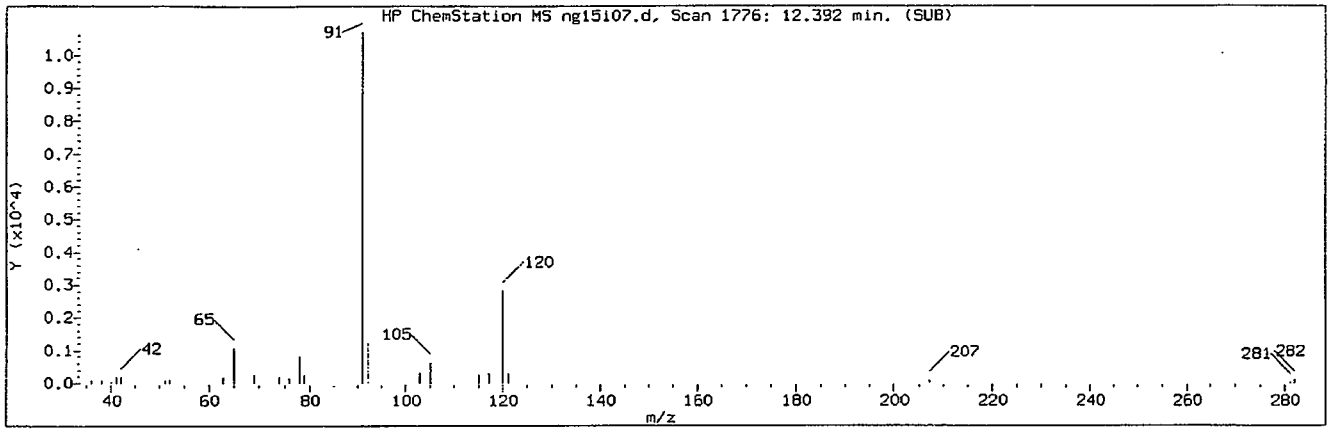
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:34
Date, time and analyst ID of latest file update: 15-Aug-2012 14:35 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

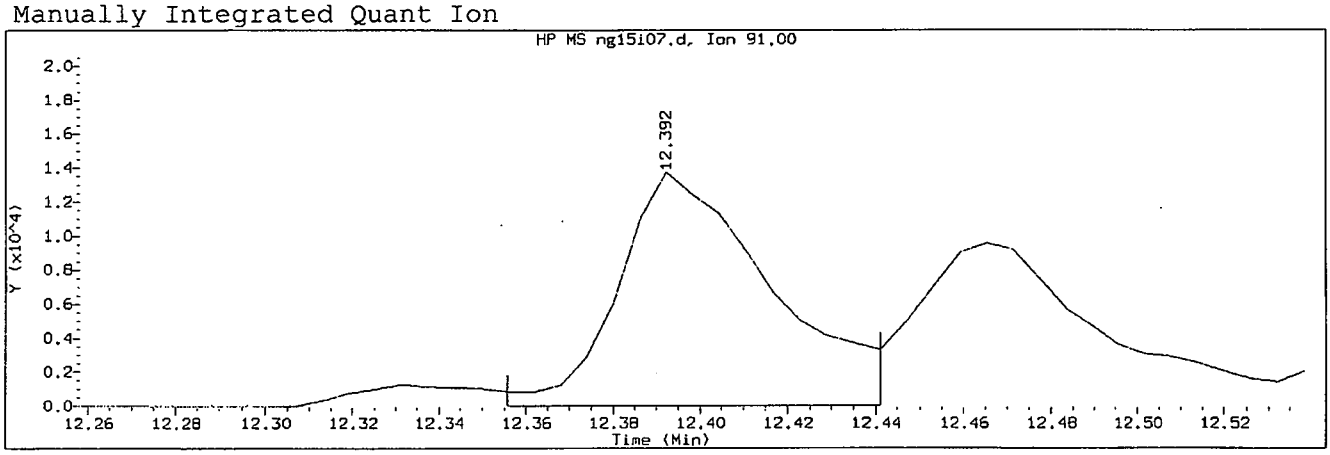
Compound Number	: 85		
Compound Name	: 4-Methyl-2-Pentanone		
Scan Number	: 1315		
Retention Time (minutes)	: 9.588		
Quant Ion	: 43.00		
Area	: 119		
On-column Amount (ng)	: 0.0097		
Integration start scan	: 1313	Integration stop scan:	1320
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/16/2012 at 20:05.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

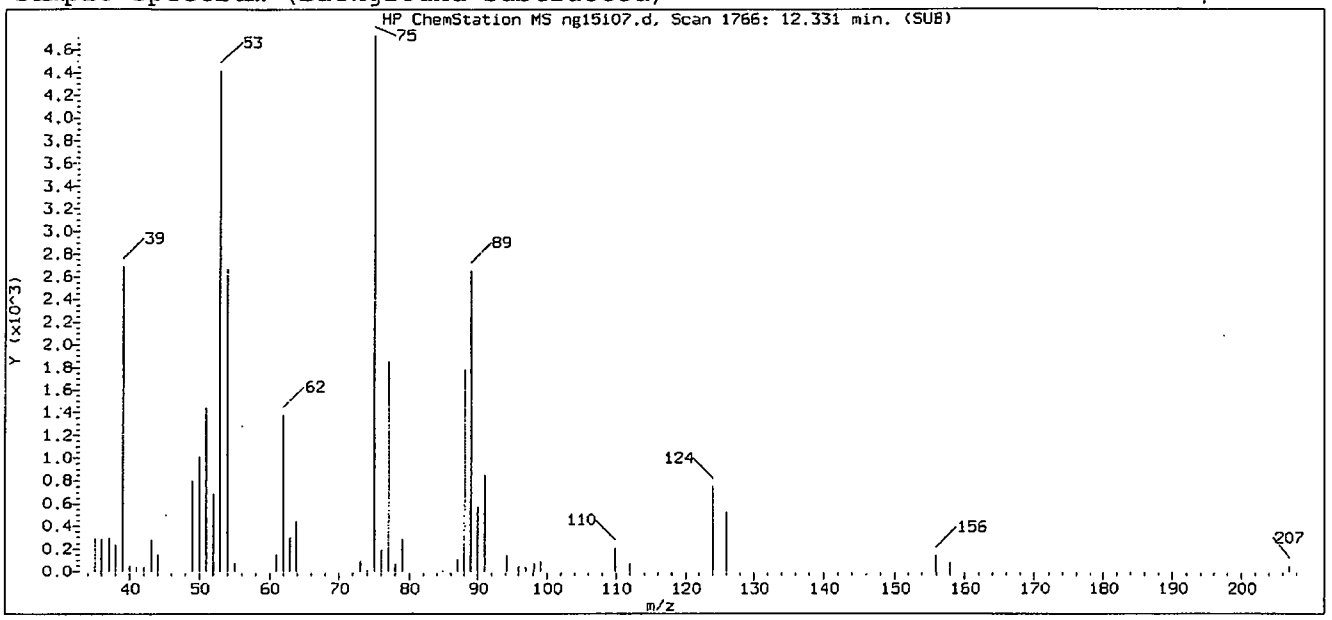
Compound Number	: 120		
Compound Name	: n-Propylbenzene		
Scan Number	: 1776		
Retention Time (minutes)	: 12.392		
Quant Ion	: 91.00		
Area (flag)	: 32880A		
On-Column Amount (ng)	: 0.8095		
Integration start scan	: 1769	Integration stop scan:	1783
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

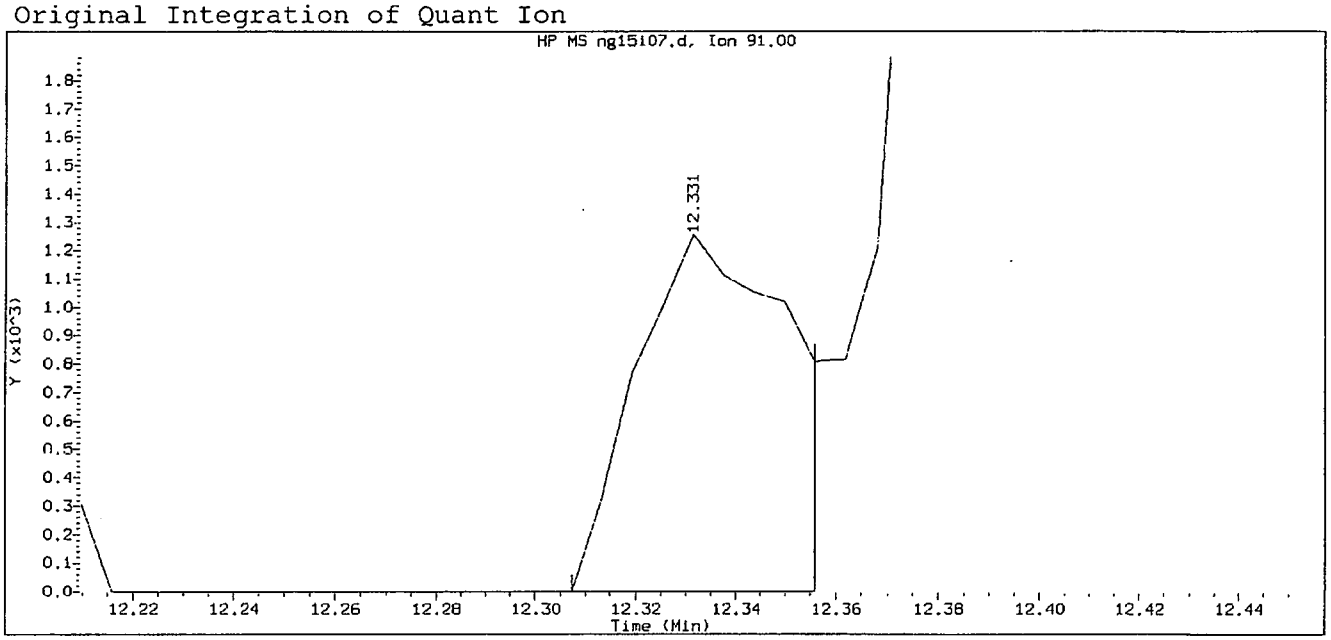
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:05. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:34
Date, time and analyst ID of latest file update: 15-Aug-2012 14:35 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 120		
Compound Name	: n-Propylbenzene		
Scan Number	: 1766		
Retention Time (minutes)	: 12.331		
Quant Ion	: 91.00		
Area	: 2534		
On-column Amount (ng)	: 0.0691		
Integration start scan	: 1761	Integration stop scan:	1769
Y at integration start	: 0	Y at integration end:	0

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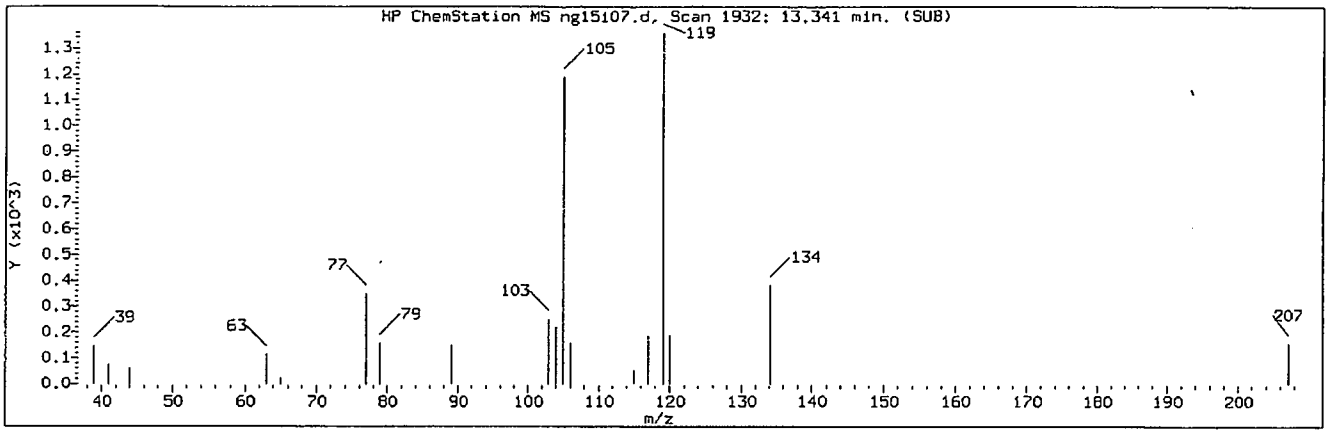
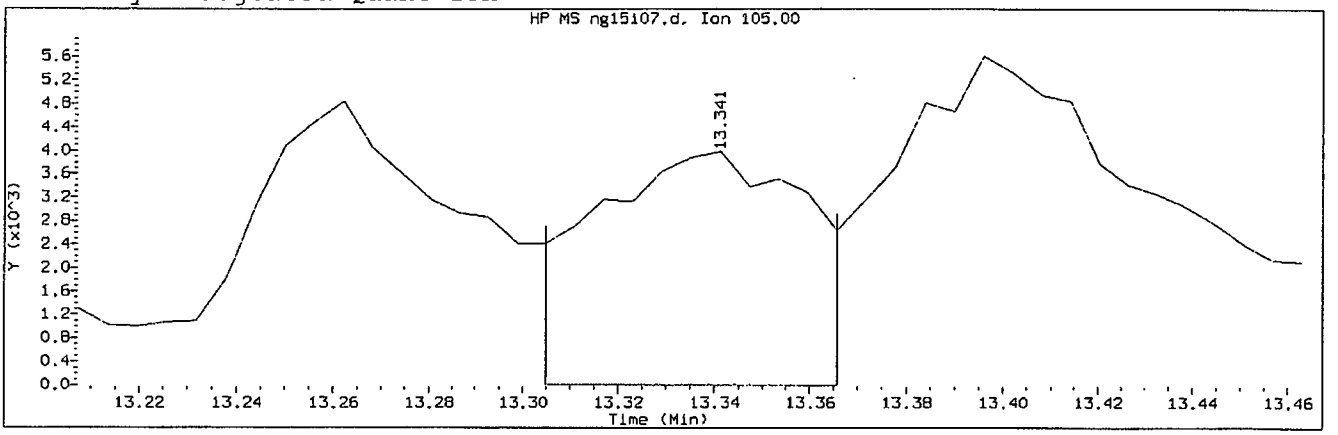
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

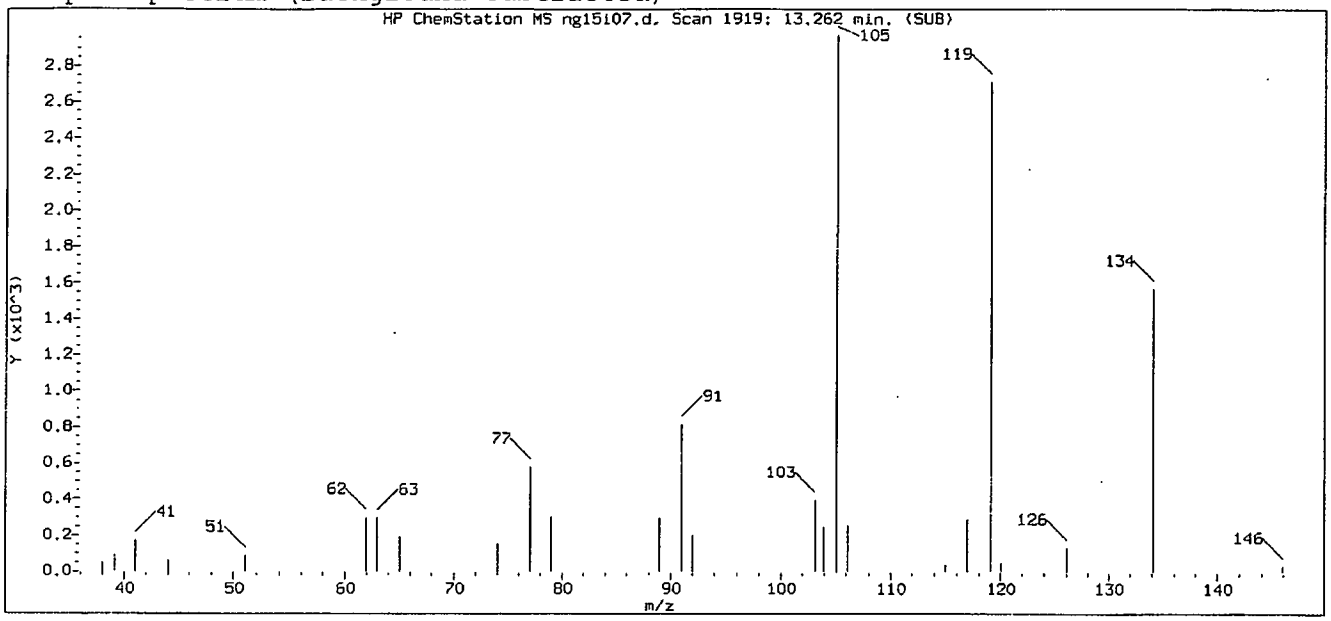
Compound Number	: 135		
Compound Name	: 1,4-Diethylbenzene		
Scan Number	: 1932		
Retention Time (minutes)	: 13.341		
Quant Ion	: 105.00		
Area (flag)	: 12137A		
On-Column Amount (ng)	: 0.6807		
Integration start scan	: 1925	Integration stop scan:	1935
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

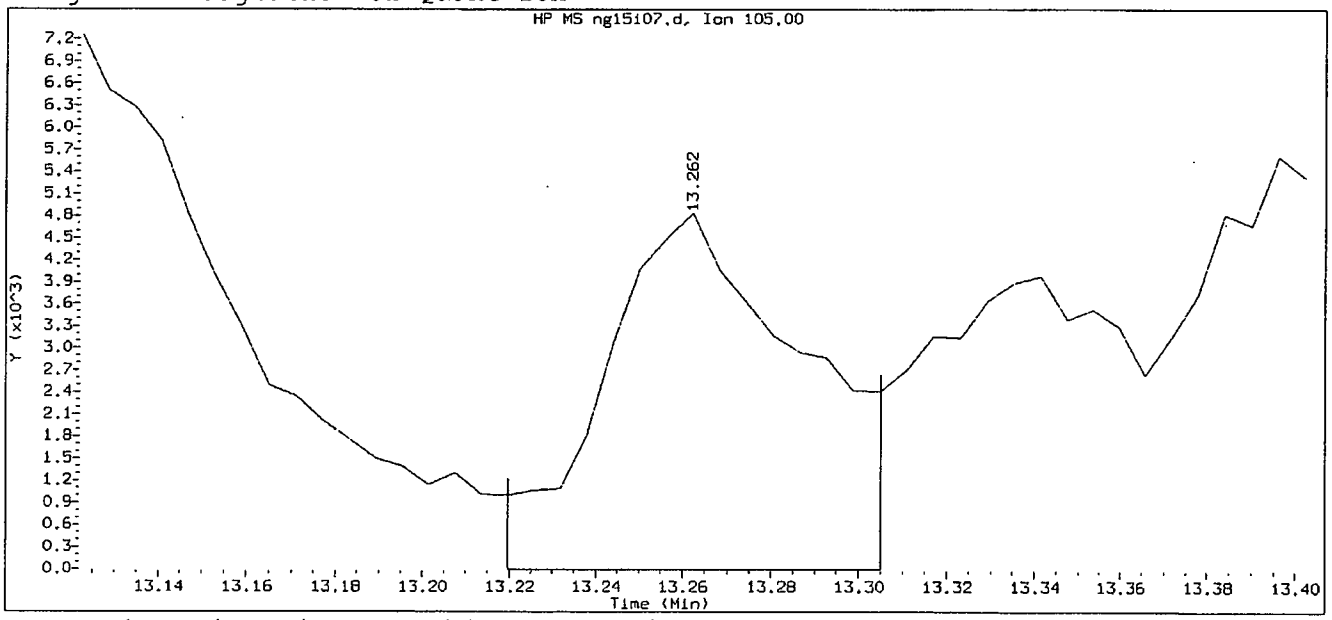
Analyst responsible for change: Digitally signed by Sarah A. Cull on 08/16/2012 at 20:05 Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:34
Date, time and analyst ID of latest file update: 15-Aug-2012 14:35 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 135		
Compound Name	: 1,4-Diethylbenzene		
Scan Number	: 1919		
Retention Time (minutes)	: 13.262		
Quant Ion	: 105.00		
Area	: 15044		
On-column Amount (ng)	: 0.9451		
Integration start scan	: 1911	Integration stop scan:	1925
Y at integration start	: 0	Y at integration end:	0

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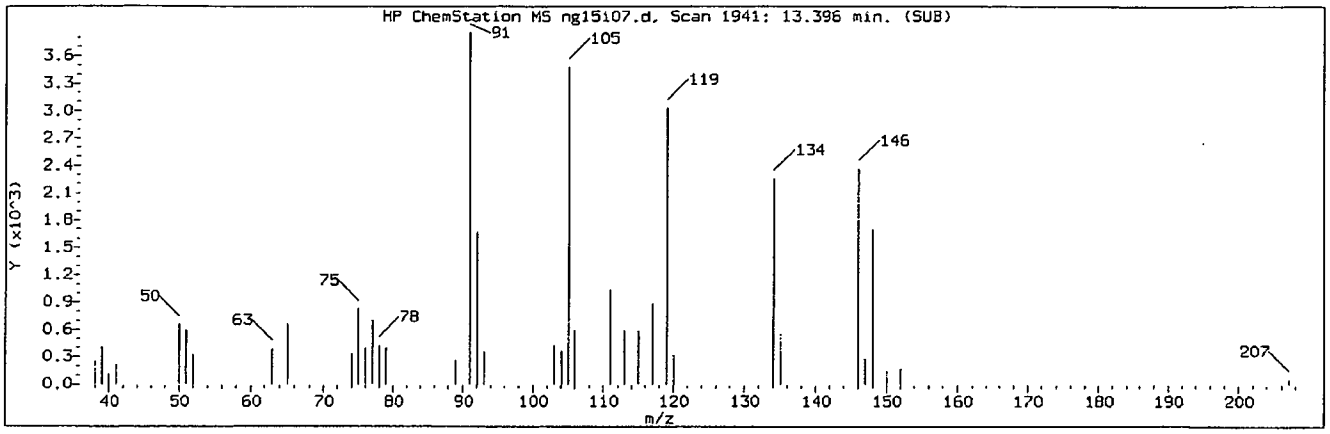
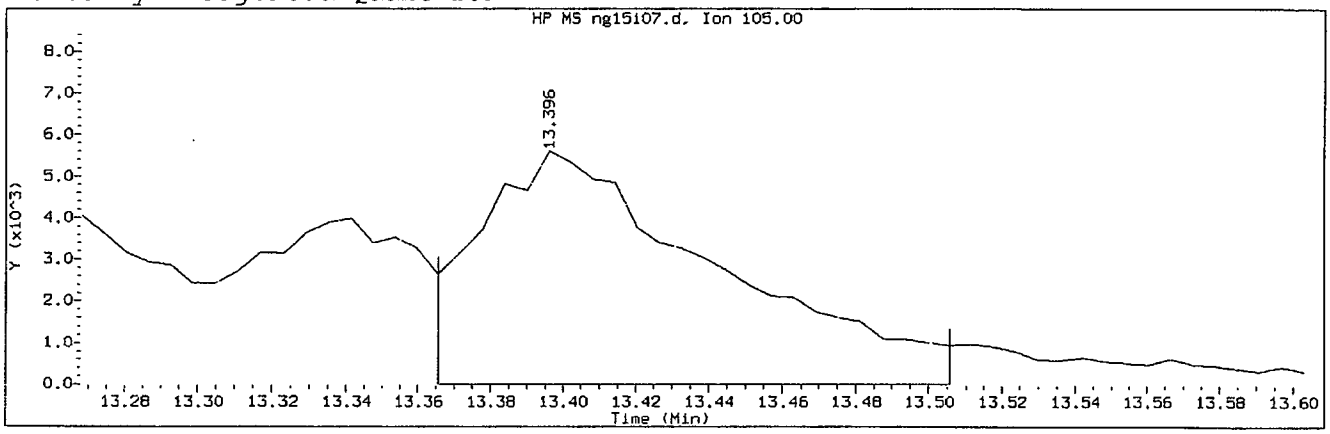
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:45
Date, time and analyst ID of latest file update: 16-Aug-2012 19:23 sag03174

Sample Name: VSTD001 Lab Sample ID: VSTD001

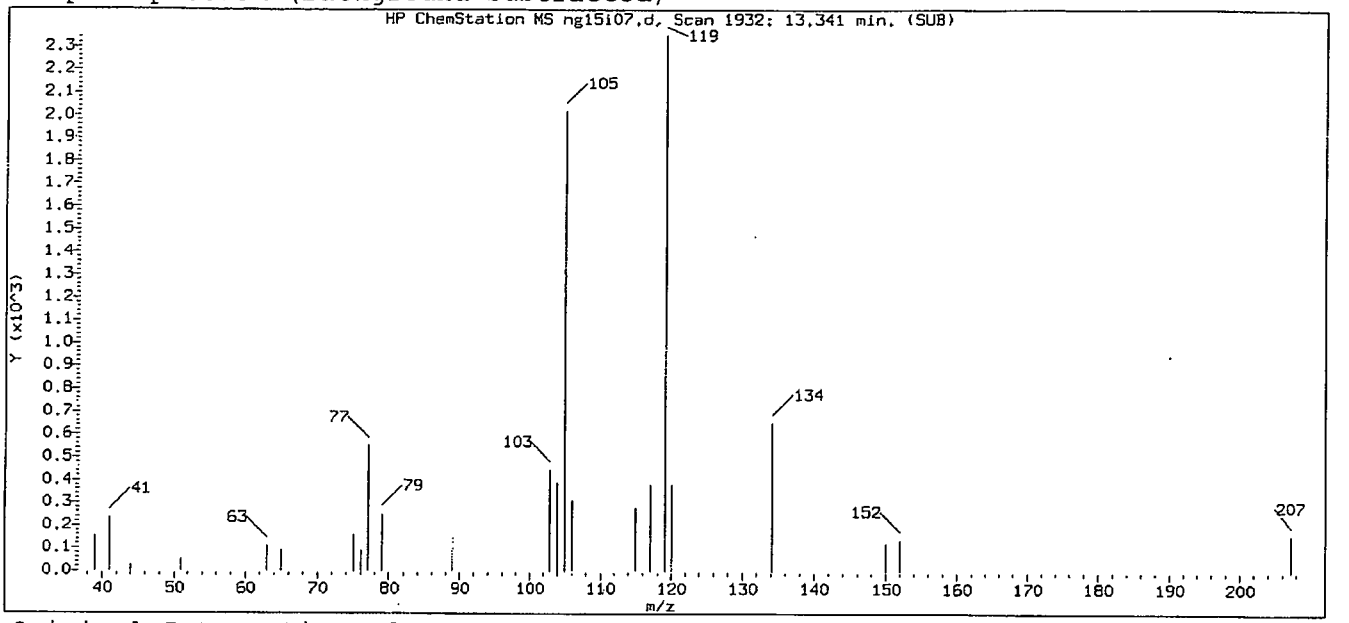
Compound Number	: 138		
Compound Name	: 1,2-Diethylbenzene		
Scan Number	: 1941		
Retention Time (minutes)	: 13.396		
Quant Ion	: 105.00		
Area (flag)	: 26130M		
On-Column Amount (ng)	: 0.0000		
Integration start scan	: 1935	Integration stop scan:	1958
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

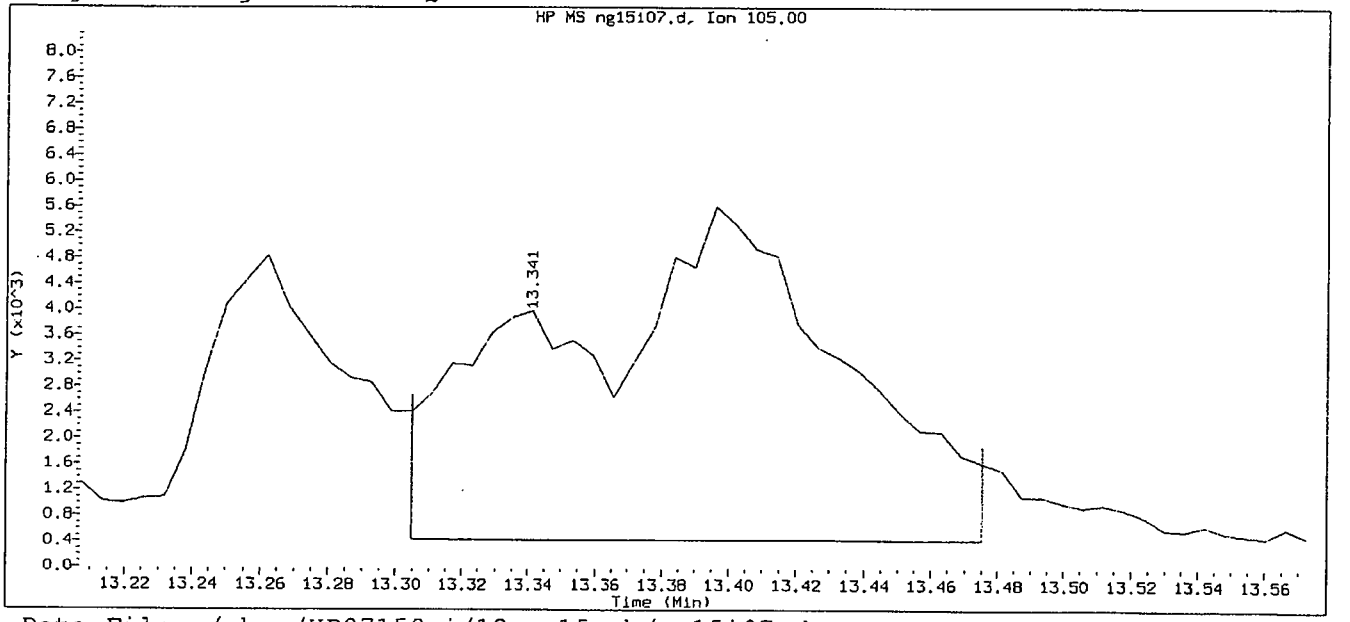
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/16/2012 at 20:05 Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15i07.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:15 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260WI
Calibration date and time: 15-AUG-2012 14:34
Date, time and analyst ID of latest file update: 15-Aug-2012 14:35 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number	: 138		
Compound Name	: 1,2-Diethylbenzene		
Scan Number	: 1932		
Retention Time (minutes)	: 13.341		
Quant Ion	: 105.00		
Area	: 31093		
On-column Amount (ng)	: 1.5816		
Integration start scan	: 1925	Integration stop scan:	1953
Y at integration start	: 424	Y at integration end:	424

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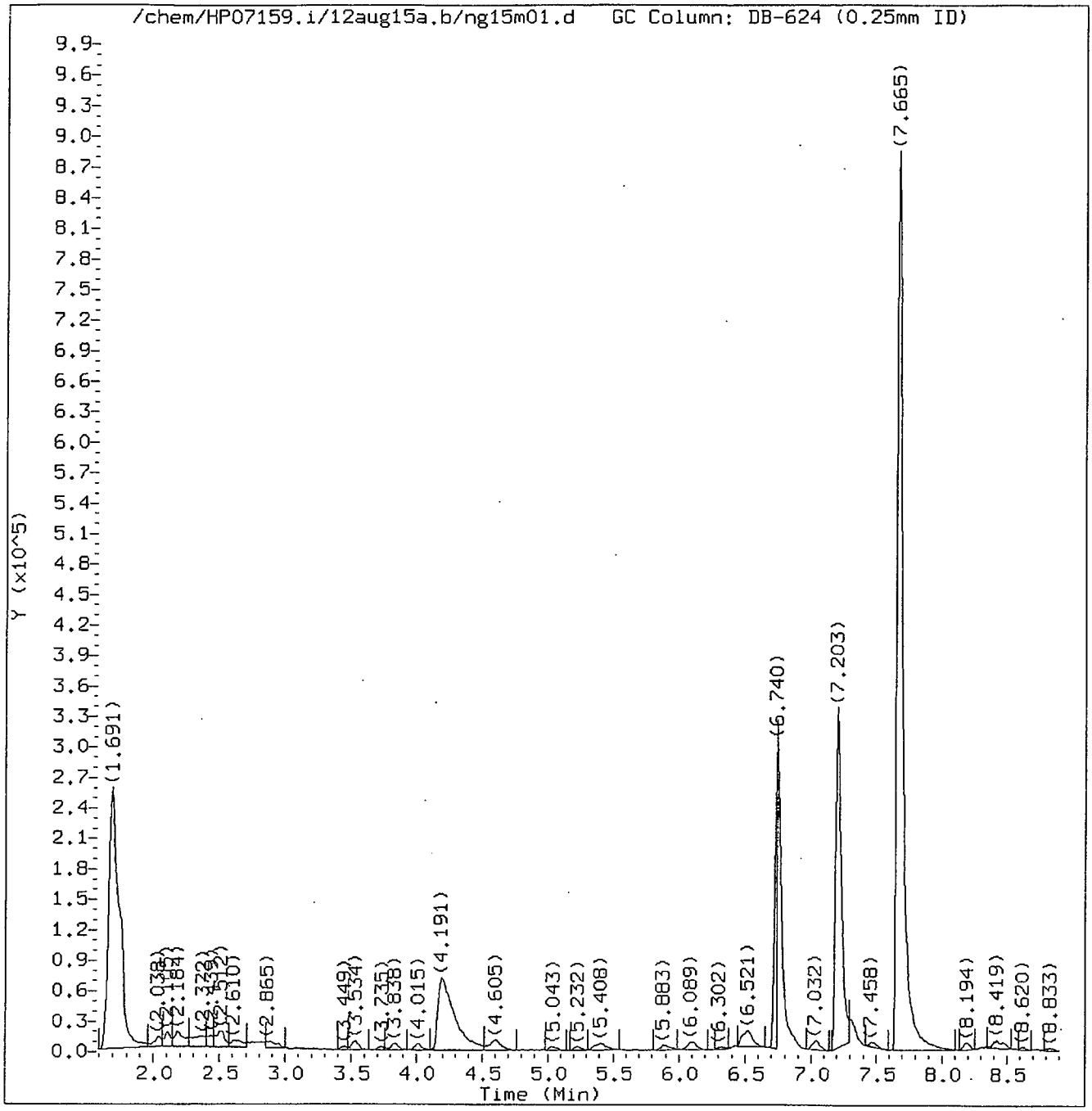
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15m01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:38 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 18:28
Date, time and analyst ID of latest file update: 16-Aug-2012 20:09 sag03174

Sample Name: 0.5PPB Lab Sample ID: 0.5PPB

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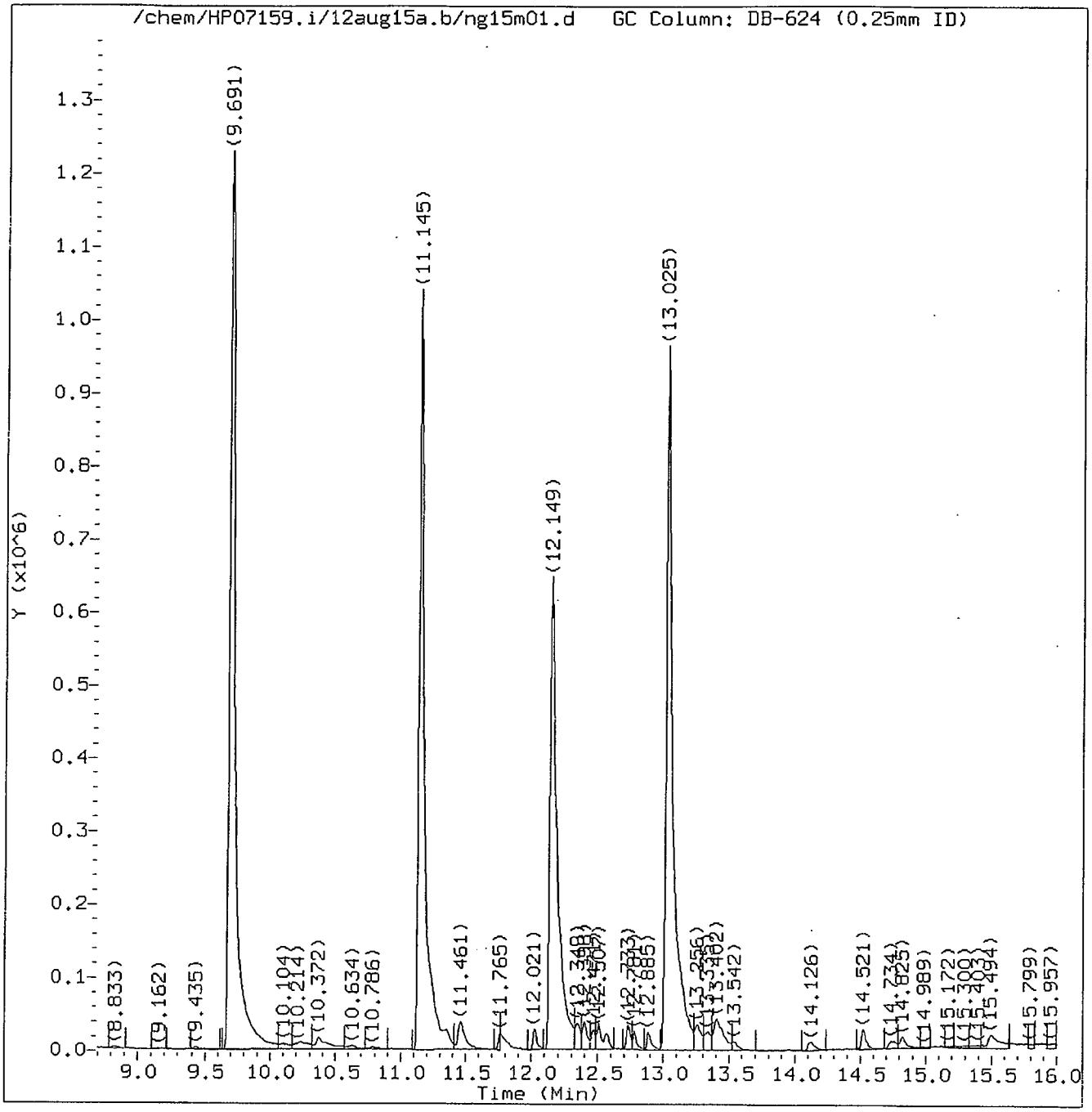
on 08/16/2012 at 20:11
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15m01.d
Injection date and time: 15-AUG-2012 14:38

Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 18:28

Sublist used: 8260W

Date, time and analyst ID of latest file update: 16-Aug-2012 20:09 sag03174

Sample Name: 0.5PPB

Lab Sample ID: 0.5PPB

Digitally signed by Sarah A. Guill
on 08/16/2012 at 20:11.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15m01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:38 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 18:28
Date, time and analyst ID of latest file update: 16-Aug-2012 20:09 sag03174

Sample Name: 0.5PPB Lab Sample ID: 0.5PPB

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.922	85	4229	0.440
3) Chloromethane	(1)	2.038	50	8399	0.982
4) Vinyl Chloride	(1)	2.178	62	7839	0.906
5) Bromomethane	(1)	2.512	94	5294	1.011
7) Chloroethane	(1)	2.616	64	4505	1.017
8) Trichlorofluoromethane	(1)	2.950	101	5071	0.527
12) Ethanol	(4)	3.163	45	5971	59.176
13) Acrolein	(4)	3.449	56	10666	4.512
16) 1,1-Dichloroethene	(1)	3.534	96	4869	0.820
18) Freon 113	(1)	3.534	101	2241	0.371
20) Methyl Iodide	(1)	3.729	142	8436	0.803
21) 2-Propanol	(4)	3.838	45	9905	9.789
22) Carbon Disulfide	(1)	3.838	76	17432	0.868
23) Allyl Chloride	(1)	3.997	41	11986	0.956
24) Methyl Acetate	(1)	4.143	43	6370	0.712
25) Methylene Chloride	(1)	4.161	84	5888	0.778
26)*t-Butyl Alcohol-d10	(4)	4.191	65	349138	250.000
27) t-Butyl Alcohol	(4)	4.319	59	17149	10.198
30) Methyl Tertiary Butyl Ether	(1)	4.593	73	11116	0.463
29) trans-1,2-Dichloroethene	(1)	4.605	96	6360	0.930
34) n-Hexane	(1)	5.043	57	3954	0.432
36) 1,1-Dichloroethane	(1)	5.226	63	10277	0.787
33) 1,2-Dichloroethene (total)	(1)		96	11999	1.650
37) di-Isopropyl Ether	(1)	5.365	45	14182	0.581
38) 2-Chloro-1,3-Butadiene	(1)	5.426	53	8047	0.769
39) Ethyl t-Butyl Ether	(1)	5.883	59	13822	0.579
44) 2,2-Dichloropropane	(1)	6.083	77	7708	0.817
40) cis-1,2-Dichloroethene	(1)	6.108	96	5639	0.721
42) 2-Butanone	(1)	6.302	43	3189	0.551
45) Propionitrile	(4)	6.327	54	15090	8.490
48) Bromochloromethane	(1)	6.430	128	1737	0.433
47) Methacrylonitrile	(1)	6.491	67	17240	3.471
49) Tetrahydrofuran	(4)	6.509	71	507	0.309
50) Chloroform	(1)	6.527	83	11048	0.897
51)$Dibromofluoromethane	(1)	6.740	113	326065	49.954
53) 1,1,1-Trichloroethane	(1)	6.783	97	8186	0.808
56) Cyclohexane	(1)	6.868	56	6238	0.492
59) Carbon Tetrachloride	(1)	7.020	117	4570	0.616

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/16/2012 at 20:11
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15m01.d
Injection date and time: 15-AUG-2012 14:38
Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 15-AUG-2012 18:28
Sublist used: 8260W
Date, time and analyst ID of latest file update: 16-Aug-2012 20:09 sag03174

Sample Name: 0.5PPB
Lab Sample ID: 0.5PPB

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
58) 1,1-Dichloropropene	(1)	7.044	75	10614	1.018
62)$1,2-Dichloroethane-d4	(1)	7.203	102	88266	50.558
61) Isobutyl Alcohol	(4)	7.288	41	12021	22.502
65) Benzene	(1)	7.318	78	24639	0.821
66) 1,2-Dichloroethane	(1)	7.324	62	4748	0.500
68) t-Amyl Methyl Ether	(1)	7.464	73	11071	0.481
70)*Fluorobenzene	(1)	7.665	96	1460225	50.000
74) Trichloroethene	(1)	8.176	95	7119	0.959
71) n-Butanol	(4)	8.419	56	16492	12.510
75) Methylcyclohexane	(1)	8.425	83	5532	0.449
76) 1,2-Dichloropropane	(1)	8.474	63	4762	0.574
78) Dibromomethane	(1)	8.620	93	2131	0.424
80) 1,4-Dioxane	(4)	8.717	88	1717	13.229
81) Bromodichloromethane	(1)	8.827	83	3847	0.460
77) Methyl Methacrylate	(1)	8.863	69	3317	0.396
83) 2-Chloroethyl Vinyl Ether	(1)	9.399	63	303	0.054
84) cis-1,3-Dichloropropene	(1)	9.423	75	5875	0.486
86)$Toluene-d8	(2)	9.691	98	1424833	48.773
88) Toluene	(2)	9.776	92	16605	0.839
89) trans-1,3-Dichloropropene	(2)	10.104	75	5529	0.472
91) 1,1,2-Trichloroethane	(2)	10.238	97	3867	0.495
95) 2-Hexanone	(2)	10.305	43	104	0.011
90) Ethyl Methacrylate	(2)	10.311	69	7074	0.494
93) Tetrachloroethene	(2)	10.378	166	6247	0.827
94) 1,3-Dichloropropane	(2)	10.433	76	5926	0.436
96) Dibromochloromethane	(2)	10.628	129	2174	0.460
97) 1,2-Dibromoethane	(2)	10.774	107	2980	0.367
98)*Chlorobenzene-d5	(2)	11.145	117	1044158	50.000
100) Chlorobenzene	(2)	11.175	112	14856	0.679
101) 1,1,1,2-Tetrachloroethane	(2)	11.248	131	3510	0.517
102) Ethylbenzene	(2)	11.352	91	28539	0.788
103) m+p-Xylene	(2)	11.461	106	24365	1.657
104) Xylene (Total)	(2)		106	34830	2.381
106) o-Xylene	(2)	11.765	106	10465	0.724
109) Styrene	(2)	11.802	104	13081	0.542
110) Bromoform	(2)	11.917	173	798	1.955
111) Isopropylbenzene	(2)	12.027	105	30394	0.851
114)$4-Bromofluorobenzene	(2)	12.142	95	524114	49.346

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/16/2012 at 20:11.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15m01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 14:38 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 18:28
Date, time and analyst ID of latest file update: 16-Aug-2012 20:09 sag03174

Sample Name: 0.5PPB Lab Sample ID: 0.5PPB

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
112) Cyclohexanone	(4)	12.179	55	12120	23.081
116) 1,1,2,2-Tetrachloroethane	(3)	12.270	83	5732	0.443
119) 1,2,3-Trichloropropane	(3)	12.325	110	1361	0.376
117) Bromobenzene	(3)	12.325	156	4959	0.547
118) trans-1,4-Dichloro-2-Butene	(3)	12.349	53	8037	2.503
120) n-Propylbenzene	(3)	12.398	91	30801	0.770
121) 2-Chlorotoluene	(3)	12.465	126	6130	0.721
122) 1,3,5-Trimethylbenzene	(3)	12.507	105	25020	0.843
123) 4-Chlorotoluene	(3)	12.574	126	6479	0.696
124) tert-Butylbenzene	(3)	12.726	134	4922	0.759
125) Pentachloroethane	(3)	12.745	167	1801	0.347
126) 1,2,4-Trimethylbenzene	(3)	12.775	105	19604	0.651
127) sec-Butylbenzene	(3)	12.885	105	35487	1.015
130) *1,4-Dichlorobenzene-d4	(3)	13.025	152	563812	50.000
128) p-Isopropyltoluene	(3)	13.043	119	29907	1.005
131) 1,4-Dichlorobenzene	(3)	13.043	146	20749	1.072
132) 1,2,3-Trimethylbenzene	(3)	13.128	105	21582	0.669
134) 1,3-Diethylbenzene	(3)	13.268	105	14271	0.776
135) 1,4-Diethylbenzene	(3)	13.347	105	11474	0.654
137) 1,2-Dichlorobenzene	(3)	13.402	146	10561	0.602
136) n-Butylbenzene	(3)	13.420	92	14525	0.926
139) 1,2-Dibromo-3-Chloropropane	(3)	13.961	75	850	0.287
141) Hexachlorobutadiene	(3)	14.521	225	4919	1.180
140) 1,2,4-Trichlorobenzene	(3)	14.533	180	9238	0.769
142) Naphthalene	(3)	14.740	128	27859	0.621
144) 1,2,3-Trichlorobenzene	(3)	14.819	180	9629	0.799
145) 2-Methylnaphthalene	(3)	15.513	142	28823	1.096

* = Compound is an internal standard.

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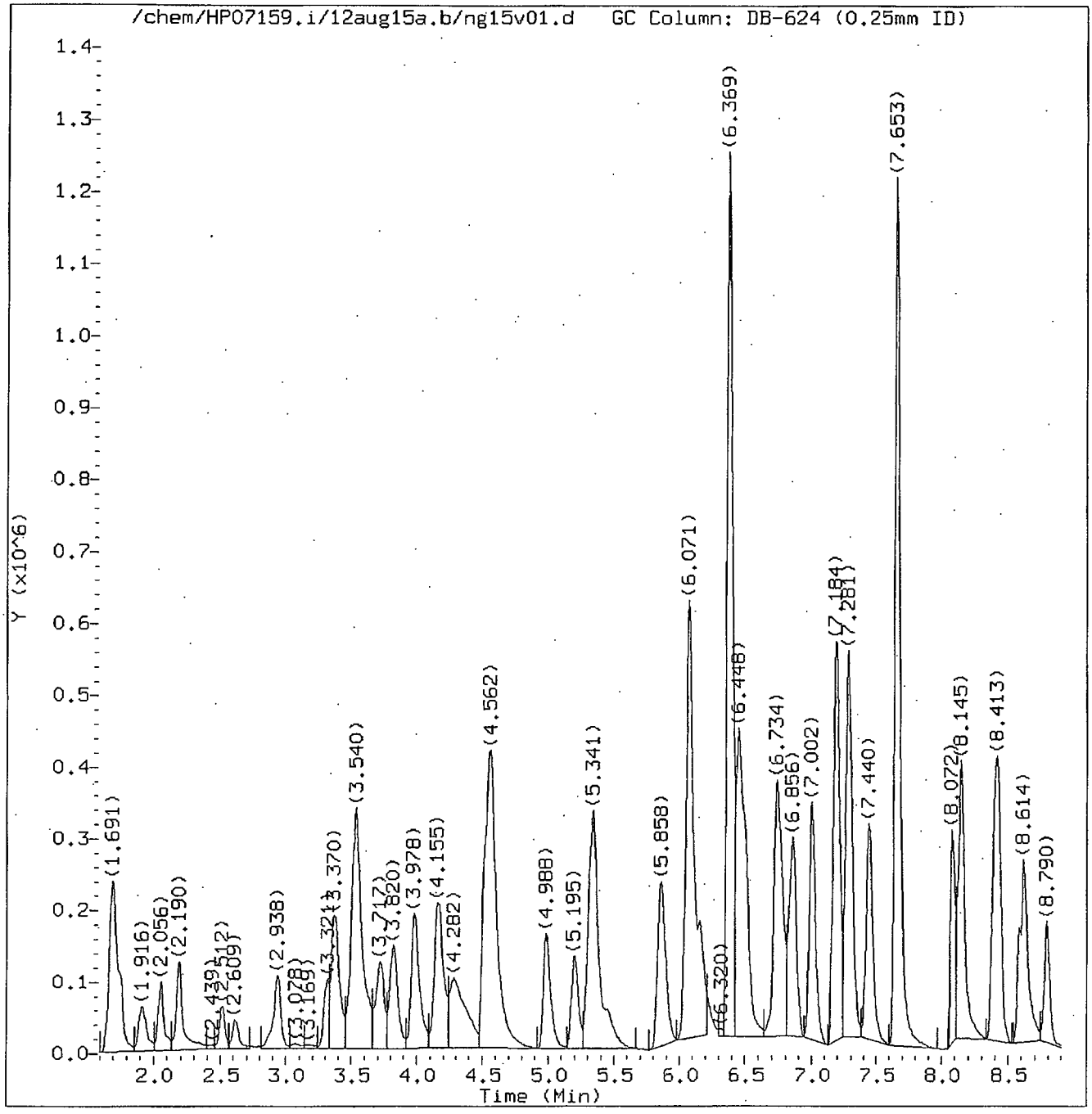
on 08/16/2012 at 20:11.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

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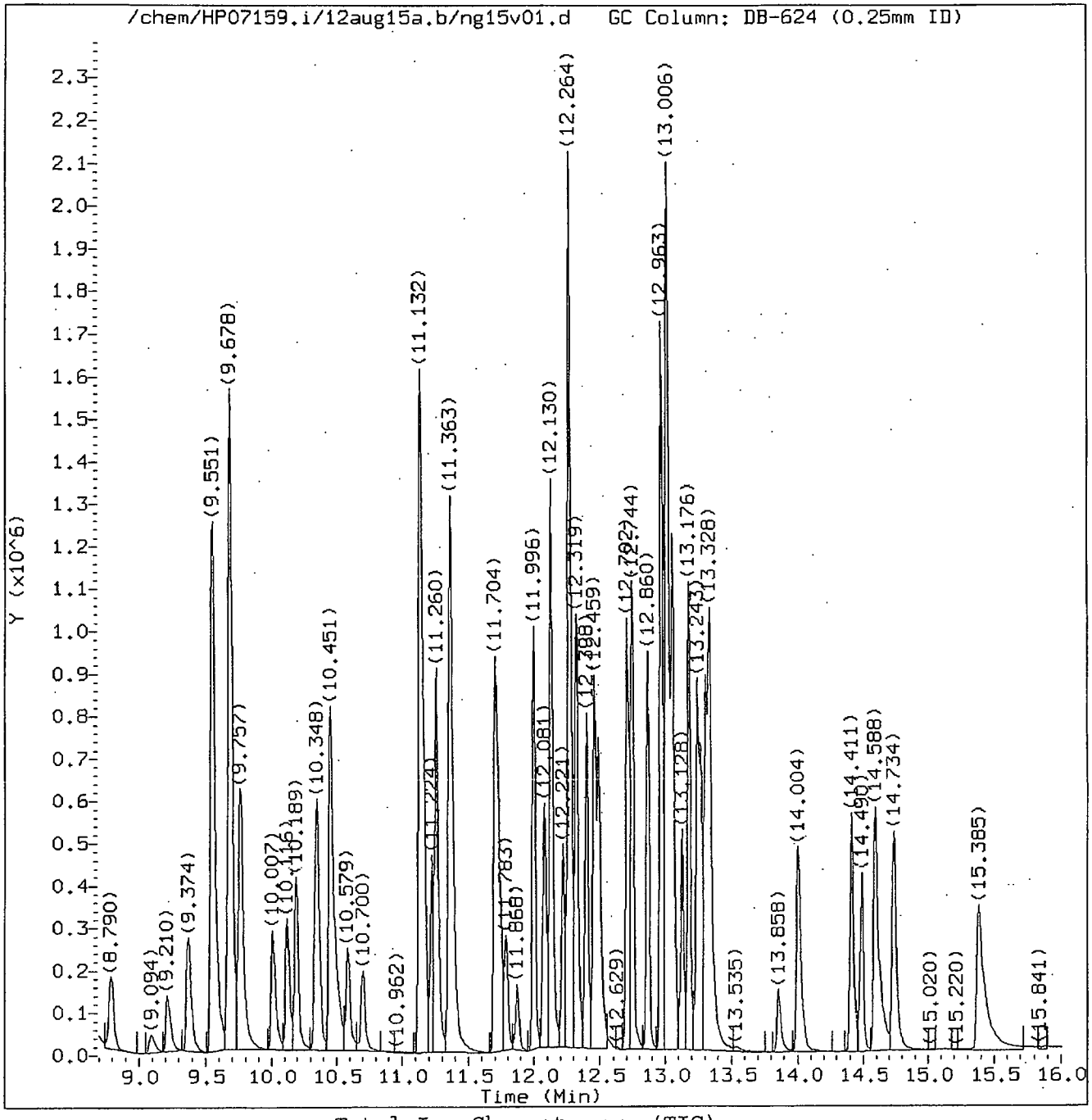
on 08/17/2012 at 15:19.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d
Injection date and time: 15-AUG-2012 16:34

Instrument ID: HP07159.i
Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m
Calibration date and time: 17-AUG-2012 15:11

Sublist used: 8260W

Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV

Lab Sample ID: LCSNICV

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on 08/17/2012 at 15:19
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.916	85	141317	14.624
3) Chloromethane	(1)	2.056	50	139608	16.225
4) Vinyl Chloride	(1)	2.190	62	147866	16.975
5) Bromomethane	(1)	2.518	94	59627M	11.313
7) Chloroethane	(1)	2.615	64	53672	12.037
8) Trichlorofluoromethane	(1)	2.938	101	176956	18.273
12) Ethanol	(4)	3.169	45	97786M	627.531
13) Acrolein	(4)	3.376	56	354528	132.000
16) 1,1-Dichloroethene	(1)	3.522	96	128496	21.492
18) Freon 113	(1)	3.528	101	118754	19.541
19) Acetone	(1)	3.558	58	211819M	171.736
20) Methyl Iodide	(1)	3.717	142	219728	20.793
21) 2-Propanol	(4)	3.741	45	161880M	140.806
22) Carbon Disulfide	(1)	3.820	76	399240	19.747
23) Allyl Chloride	(1)	3.978	41	237028	18.774
24) Methyl Acetate	(1)	4.009	43	149645	16.610
25) Methylene Chloride	(1)	4.155	84	155306	20.398
26) *t-Butyl Alcohol-d10	(4)	4.179	65	396684	250.000
27) t-Butyl Alcohol	(4)	4.295	59	348209M	182.249
28) Acrylonitrile	(1)	4.520	53	448034M	99.840
30) Methyl Tertiary Butyl Ether	(1)	4.562	73	490301	20.285
29) trans-1,2-Dichloroethene	(1)	4.568	96	145673	21.154
34) n-Hexane	(1)	4.988	57	175475	19.035
36) 1,1-Dichloroethane	(1)	5.201	63	275376	20.957
37) di-Isopropyl Ether	(1)	5.317	45	497405	20.255
33) 1,2-Dichloroethene (total)	(1)		96	310609	42.096
38) 2-Chloro-1,3-Butadiene	(1)	5.347	53	209480	19.883
39) Ethyl t-Butyl Ether	(1)	5.858	59	489897	20.395
40) cis-1,2-Dichloroethene	(1)	6.059	96	164936	20.942
44) 2,2-Dichloropropane	(1)	6.065	77	195643	20.593
42) 2-Butanone	(1)	6.077	43	923475	158.654
45) Propionitrile	(4)	6.162	54	258152M	127.828
47) Methacrylonitrile	(1)	6.369	67	742211	148.464
48) Bromochloromethane	(1)	6.387	128	77527	19.186
49) Tetrahydrofuran	(4)	6.454	71	175656	94.341
50) Chloroform	(1)	6.503	83	241014	19.445
51) $Dibromofluoromethane	(1)	6.728	113	327506	49.851
53) 1,1,1-Trichloroethane	(1)	6.770	97	210746	20.668

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 08/17/2012 at 15:19
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
56) Cyclohexane	(1)	6.856	56	248790	19.501
58) 1,1-Dichloropropene	(1)	7.002	75	198966	18.953
59) Carbon Tetrachloride	(1)	7.002	117	150153	20.092
61) Isobutyl Alcohol	(4)	7.166	41	272725	449.325
62)$1,2-Dichloroethane-d4	(1)	7.190	102	89678	51.035
65) Benzene	(1)	7.275	78	624917	20.699
66) 1,2-Dichloroethane	(1)	7.294	62	197596	20.663
68) t-Amyl Methyl Ether	(1)	7.440	73	465400	20.069
69) n-Heptane	(1)	7.653	43	155260	17.704
70)*Fluorobenzene	(1)	7.653	96	1469728	50.000
71) n-Butanol	(4)	8.078	56	477393	908.289
74) Trichloroethene	(1)	8.145	95	154834	20.732
75) Methylcyclohexane	(1)	8.395	83	233267	18.812
76) 1,2-Dichloropropane	(1)	8.431	63	171036	20.483
78) Dibromomethane	(1)	8.583	93	102600	20.300
77) Methyl Methacrylate	(1)	8.620	69	157524	18.682
80) 1,4-Dioxane	(4)	8.626	88	79347	538.064
81) Bromodichloromethane	(1)	8.790	83	169973	20.185
82) 2-Nitropropane	(4)	9.094	41	41878	15.797
83) 2-Chloroethyl Vinyl Ether	(1)	9.216	63	106141M	18.642
84) cis-1,3-Dichloropropene	(1)	9.374	75	263499	21.648
85) 4-Methyl-2-Pentanone	(1)	9.551	43	1264425	100.852
86)$Toluene-d8	(2)	9.678	98	1428751	50.811
88) Toluene	(2)	9.757	92	395015	20.741
89) trans-1,3-Dichloropropene	(2)	10.007	75	231651	20.535
90) Ethyl Methacrylate	(2)	10.116	69	269993	19.575
91) 1,1,2-Trichloroethane	(2)	10.189	97	152421	20.254
93) Tetrachloroethene	(2)	10.341	166	152440	20.976
94) 1,3-Dichloropropane	(2)	10.360	76	270315	20.676
95) 2-Hexanone	(2)	10.451	43	970118	107.018
96) Dibromochloromethane	(2)	10.585	129	134994	18.571
97) 1,2-Dibromoethane	(2)	10.700	107	162261	20.762
98)*Chlorobenzene-d5	(2)	11.132	117	1005036	50.000
100) Chlorobenzene	(2)	11.163	112	430671	20.458
101) 1,1,1,2-Tetrachloroethane	(2)	11.224	131	131964	20.202
102) Ethylbenzene	(2)	11.260	91	705659	20.244
103) m+p-Xylene	(2)	11.363	106	576452	40.730
104) Xylene (Total)	(2)		106	856816	60.892

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Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
106) o-Xylene	(2)	11.698	106	280364	20.162
109) Styrene	(2)	11.729	104	469067	20.173
110) Bromoform	(2)	11.868	173	86076	17.154
111) Isopropylbenzene	(2)	11.996	105	697284	20.278
112) Cyclohexanone	(4)	12.081	55	347827	582.989
114)$4-Bromofluorobenzene	(2)	12.130	95	514005	50.278
116) 1,1,2,2-Tetrachloroethane	(3)	12.221	83	253517	19.436
117) Bromobenzene	(3)	12.258	156	177957	19.486
119) 1,2,3-Trichloropropane	(3)	12.264	110	70304	19.265
118) trans-1,4-Dichloro-2-Butene	(3)	12.270	53	318847	98.546
120) n-Propylbenzene	(3)	12.319	91	803264	19.931
121) 2-Chlorotoluene	(3)	12.398	126	166509	19.423
122) 1,3,5-Trimethylbenzene	(3)	12.459	105	583777	19.510
123) 4-Chlorotoluene	(3)	12.489	126	183364	19.556
124) tert-Butylbenzene	(3)	12.702	134	127865	19.562
125) Pentachloroethane	(3)	12.726	167	94183	17.998
126) 1,2,4-Trimethylbenzene	(3)	12.744	105	595733	19.636
127) sec-Butylbenzene	(3)	12.860	105	685417	19.453
128) p-Isopropyltoluene	(3)	12.963	119	601684	20.071
129) 1,3-Dichlorobenzene	(3)	12.970	146	310979	20.186
130)*1,4-Dichlorobenzene-d4	(3)	13.006	152	568220	50.000
131) 1,4-Dichlorobenzene	(3)	13.024	146	372012	19.078
132) 1,2,3-Trimethylbenzene	(3)	13.055	105	626429	19.267
133) Benzyl Chloride	(3)	13.128	91	374175M	16.537
134) 1,3-Diethylbenzene	(3)	13.176	105	349853	18.887
135) 1,4-Diethylbenzene	(3)	13.243	105	339104	19.168
136) n-Butylbenzene	(3)	13.268	92	310315	19.627
137) 1,2-Dichlorobenzene	(3)	13.304	146	346073	19.574
138) 1,2-Diethylbenzene	(3)	13.328	105	408027	18.801
139) 1,2-Dibromo-3-Chloropropane	(3)	13.858	75	52763	17.670
140) 1,2,4-Trichlorobenzene	(3)	14.417	180	238379	19.702
141) Hexachlorobutadiene	(3)	14.490	225	79666	18.962
142) Naphthalene	(3)	14.588	128	847046	18.732
144) 1,2,3-Trichlorobenzene	(3)	14.734	180	234342	19.297
145) 2-Methylnaphthalene	(3)	15.385	142	468678	17.677

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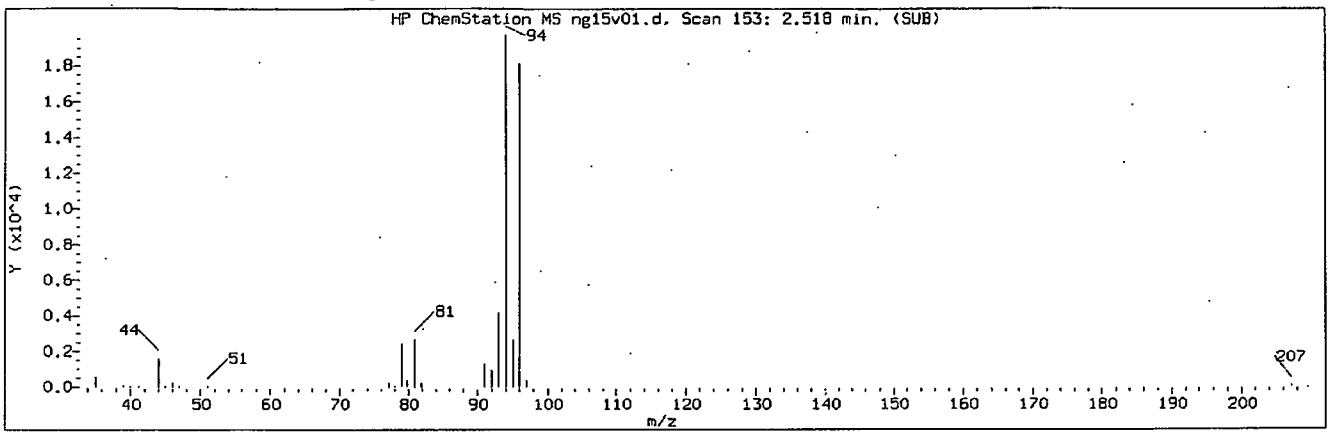
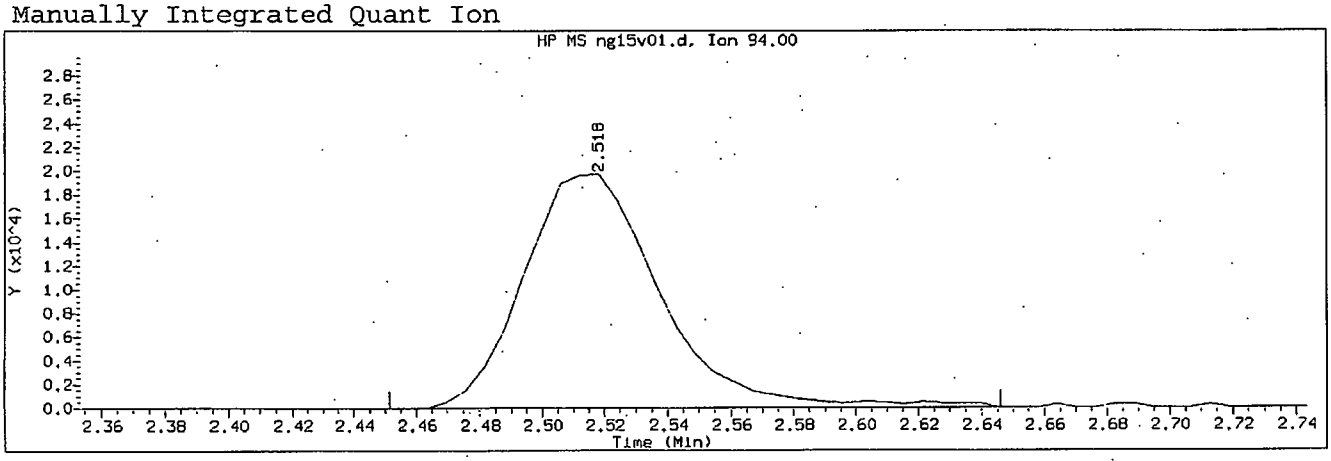
on 08/17/2012 at 15:19.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

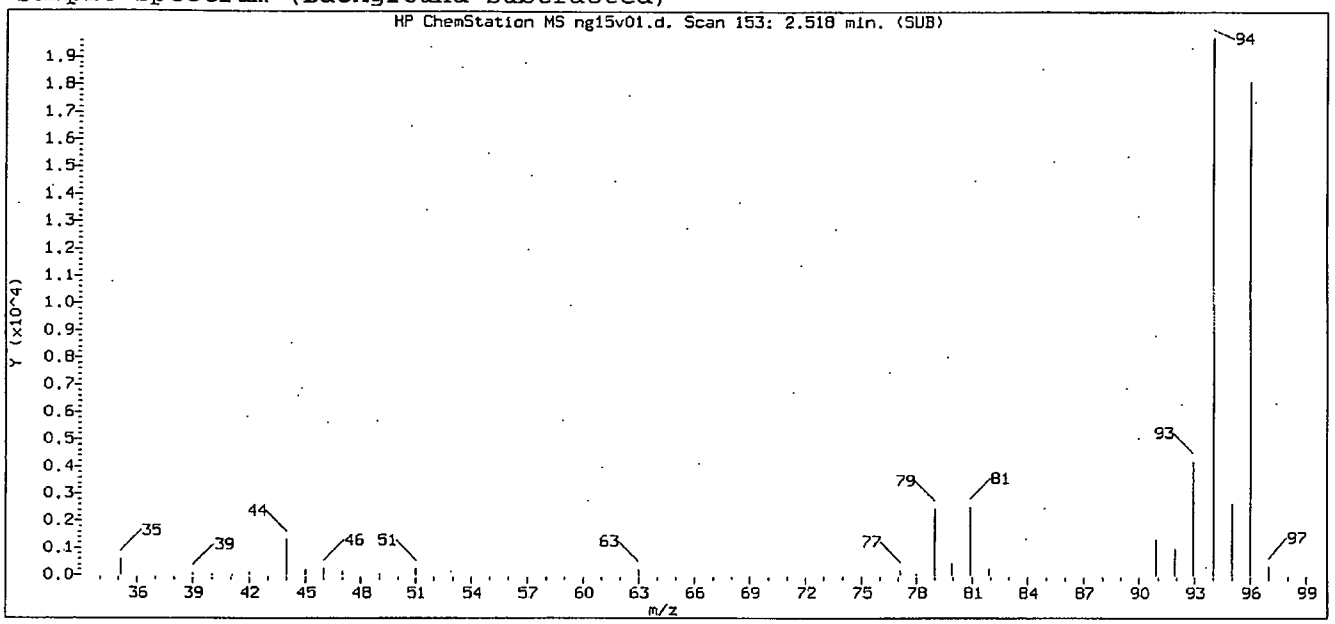
Compound Number	: 5		
Compound Name	: Bromomethane		
Scan Number	: 153		
Retention Time (minutes)	: 2.518		
Quant Ion	: 94.00		
Area (flag)	: 59627M		
On-Column Amount (ng)	: 11.3133		
Integration start scan	: 141	Integration stop scan:	173
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

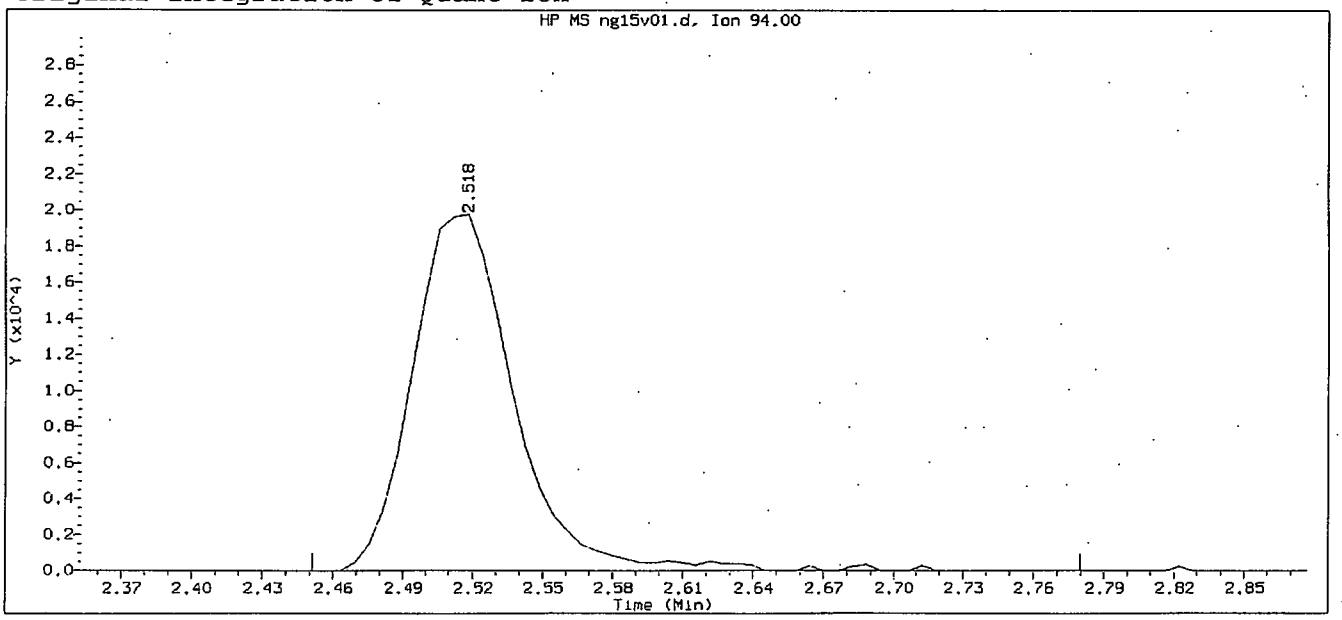
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: [signature] 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 17:00 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compound Number	: 5		
Compound Name	: Bromomethane		
Scan Number	: 153		
Retention Time (minutes)	: 2.518		
Quant Ion	: 94.00		
Area	: 60055		
On-column Amount (ng)	: 11.3946		
Integration start scan	: 141	Integration stop scan:	195
Y at integration start	: 0	Y at integration end:	0

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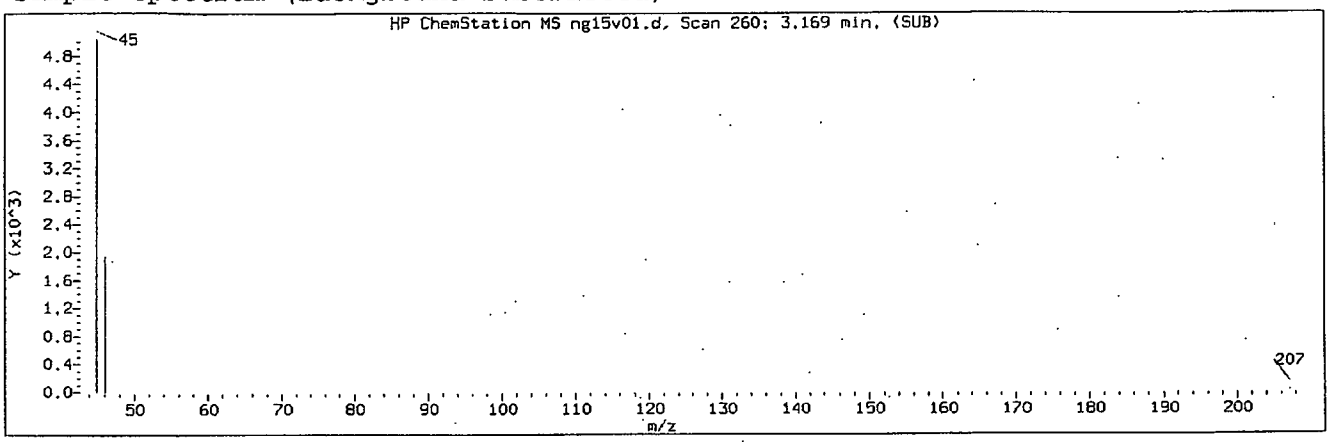
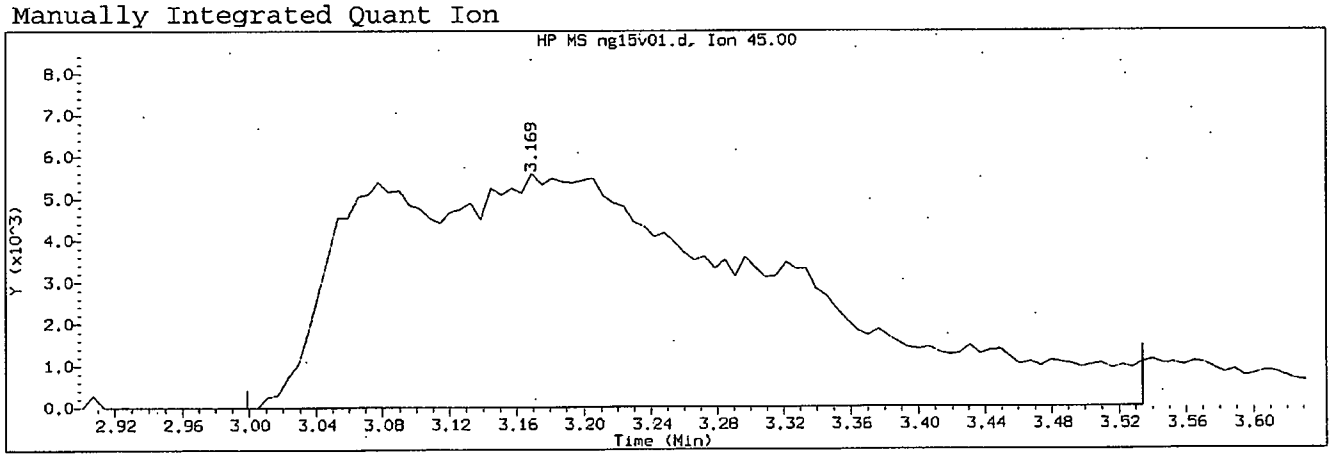
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

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Sample Name: LCSNICV Lab Sample ID: LCSNICV

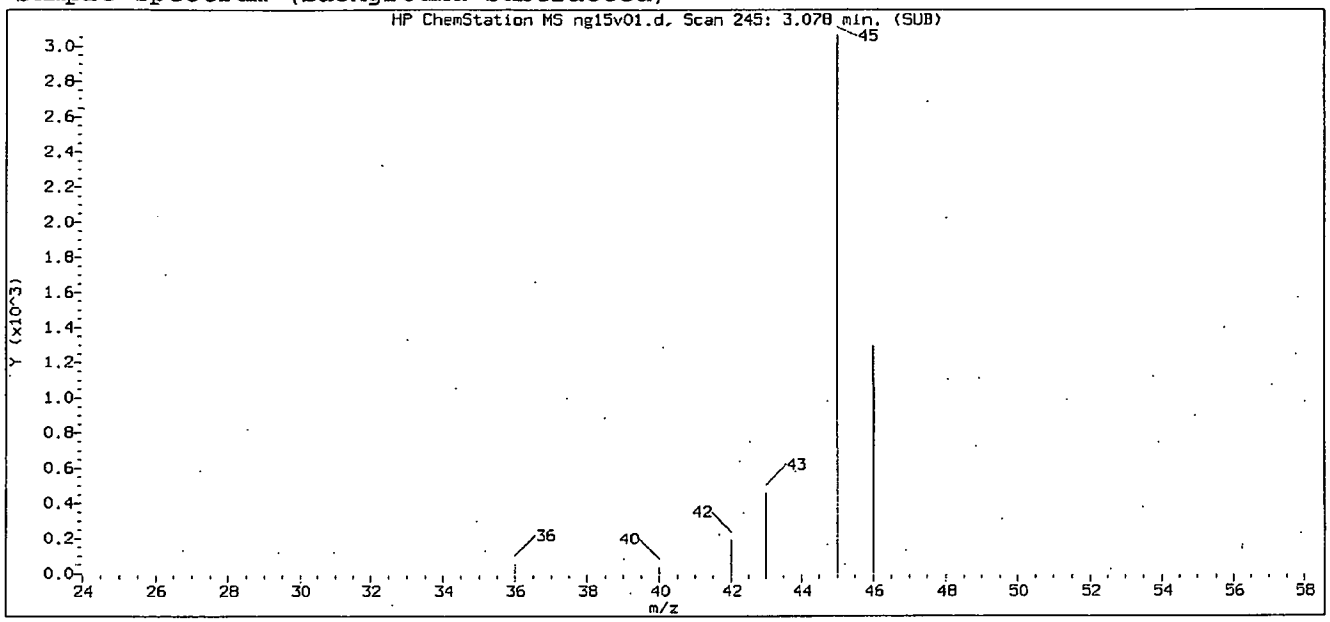
Compound Number	: 12		
Compound Name	: Ethanol		
Scan Number	: 260		
Retention Time (minutes)	: 3.169		
Quant Ion	: 45.00		
Area (flag)	: 97786M		
On-Column Amount (ng)	: 627.5308		
Integration start scan	: 231	Integration stop scan:	319
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

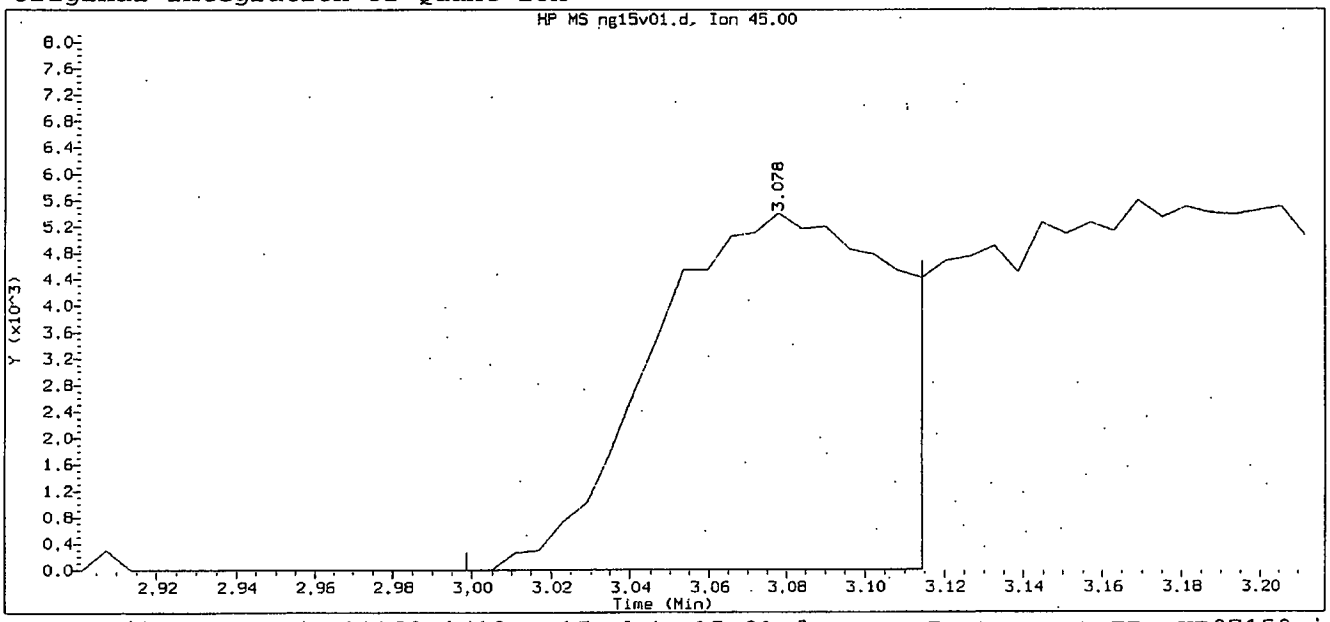
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 685 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 17:00 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compound Number	: 12		
Compound Name	: Ethanol		
Scan Number	: 245		
Retention Time (minutes)	: 3.078		
Quant Ion	: 45.00		
Area	: 22571		
On-column Amount (ng)	: 135.2933		
Integration start scan	: 231	Integration stop scan:	250
Y at integration start	: 0	Y at integration end:	0

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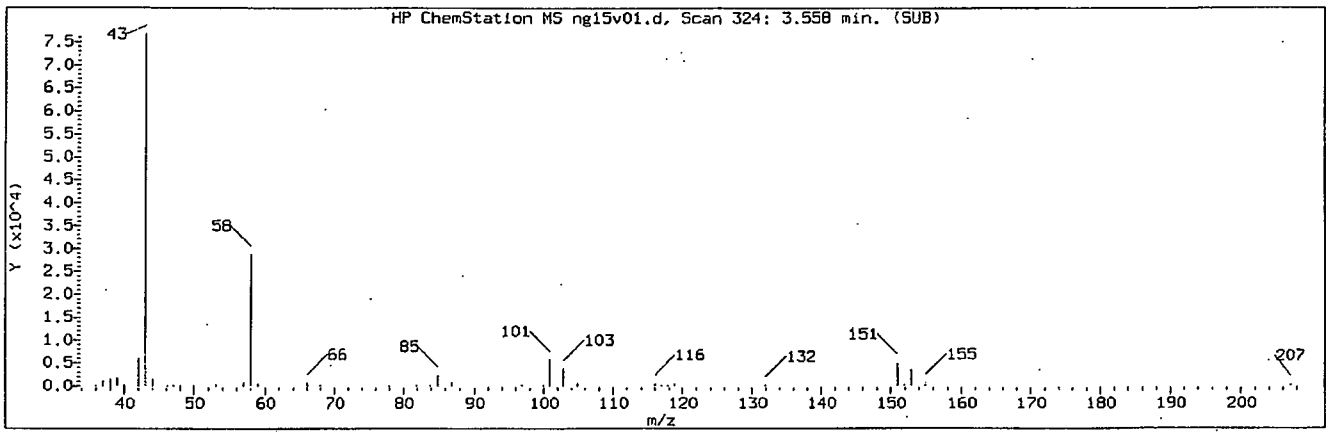
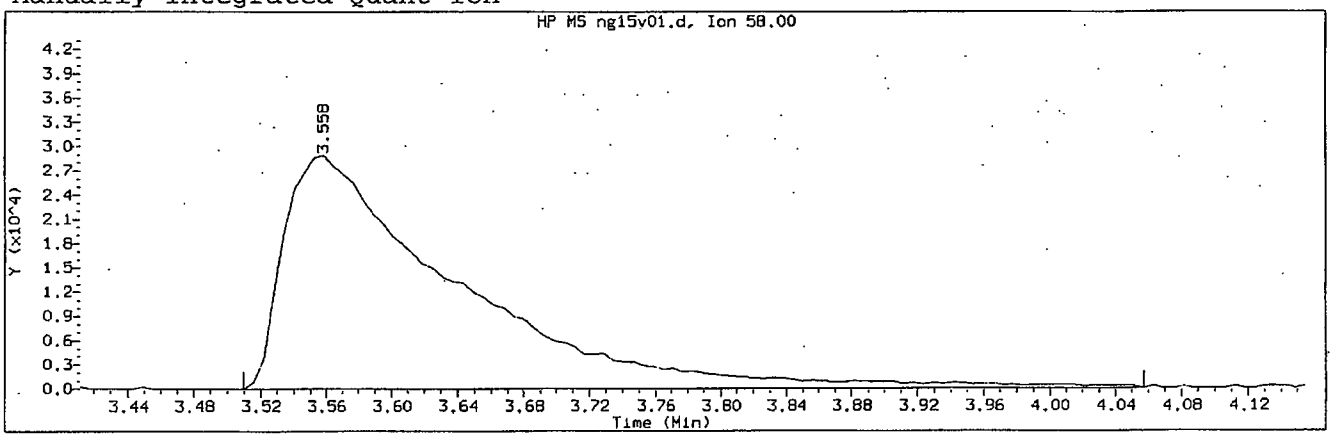
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

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Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

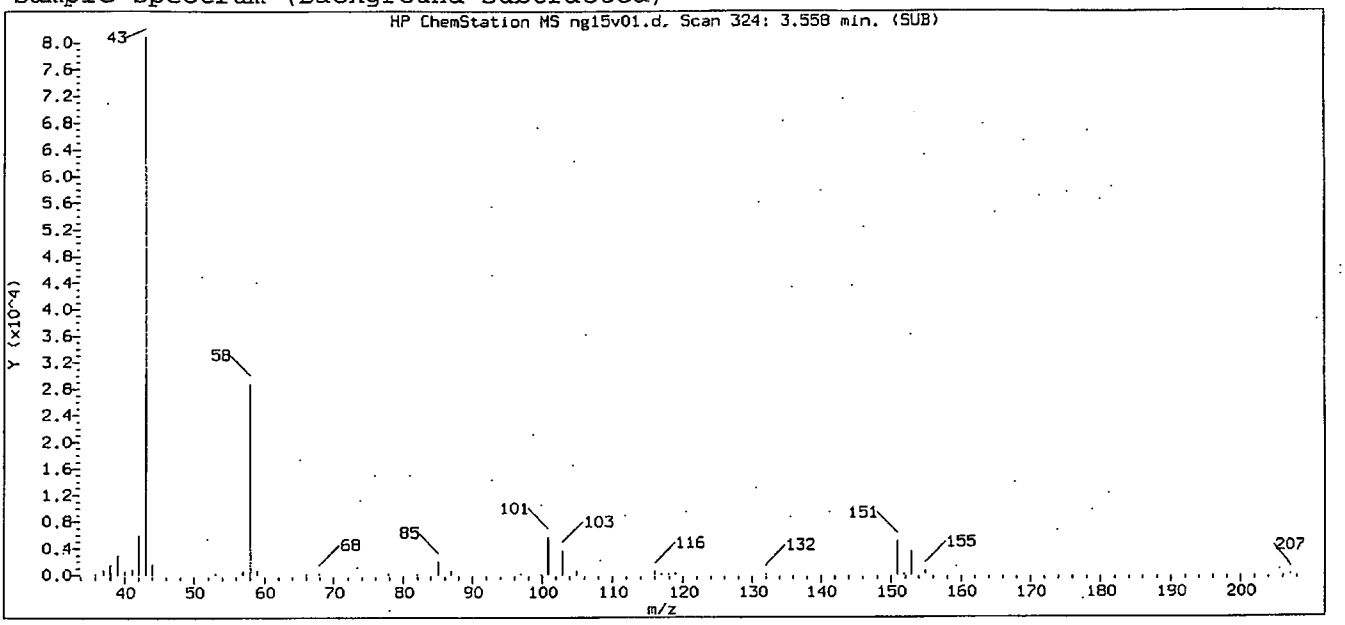
Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 324		
Retention Time (minutes)	: 3.558		
Quant Ion	: 58.00		
Area (flag)	: 211819M		
On-Column Amount (ng)	: 171.7358		
Integration start scan	: 315	Integration stop scan:	405
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

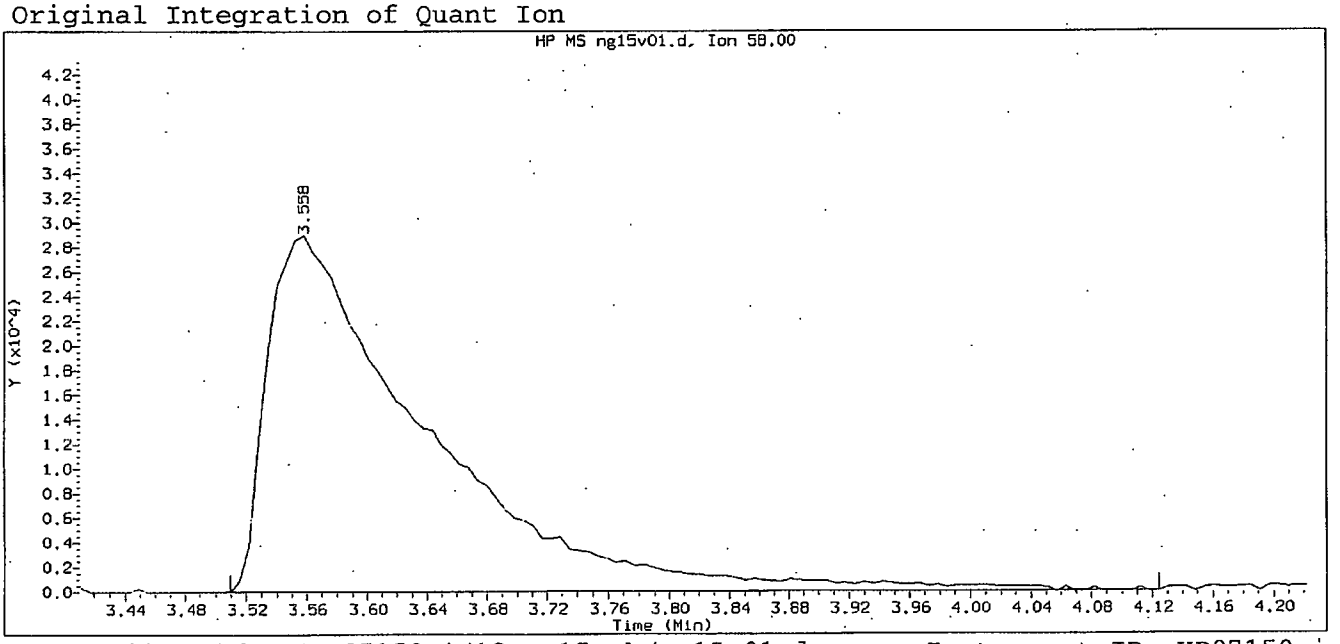
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 17:00 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compound Number	: 19		
Compound Name	: Acetone		
Scan Number	: 324		
Retention Time (minutes)	: 3.558		
Quant Ion	: 58.00		
Area	: 212142		
On-column Amount (ng)	: 171.9978		
Integration start scan	: 315	Integration stop scan:	416
Y at integration start	: 0	Y at integration end:	0

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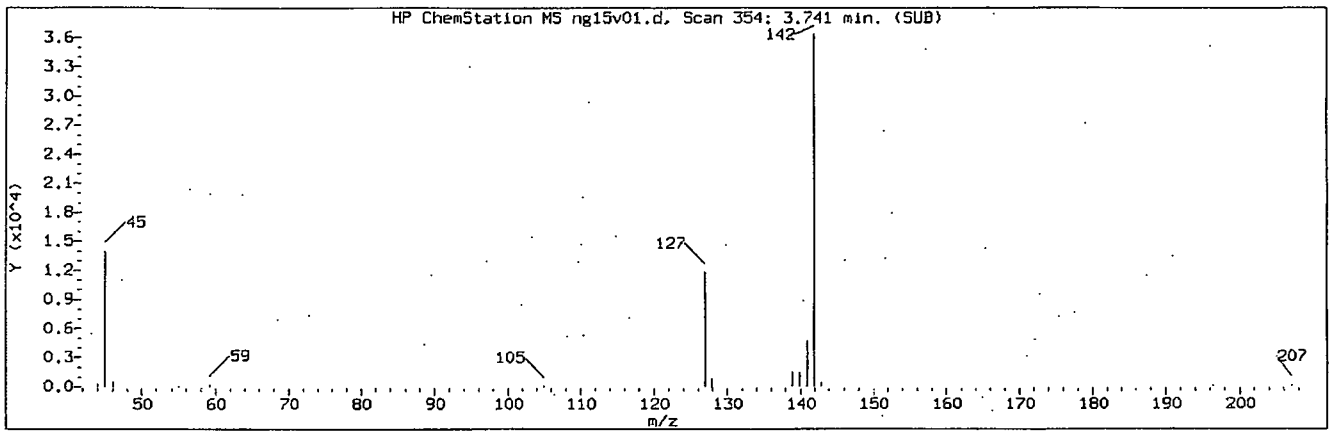
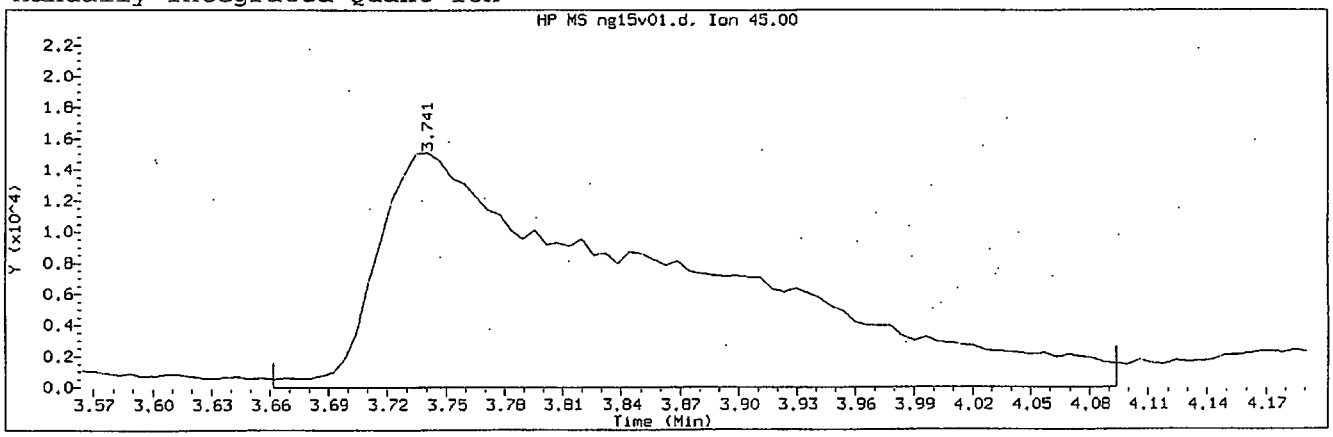
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

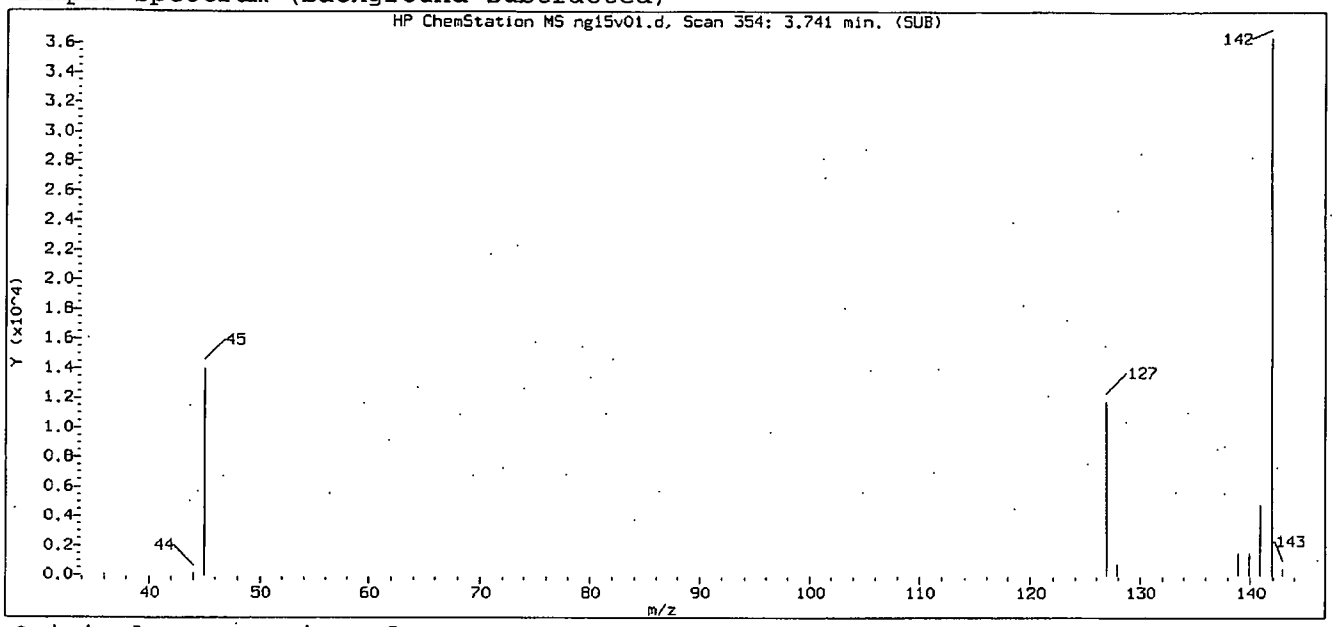
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 354		
Retention Time (minutes)	: 3.741		
Quant Ion	: 45.00		
Area (flag)	: 161880M		
On-Column Amount (ng)	: 140.8058		
Integration start scan	: 340	Integration stop scan:	411
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

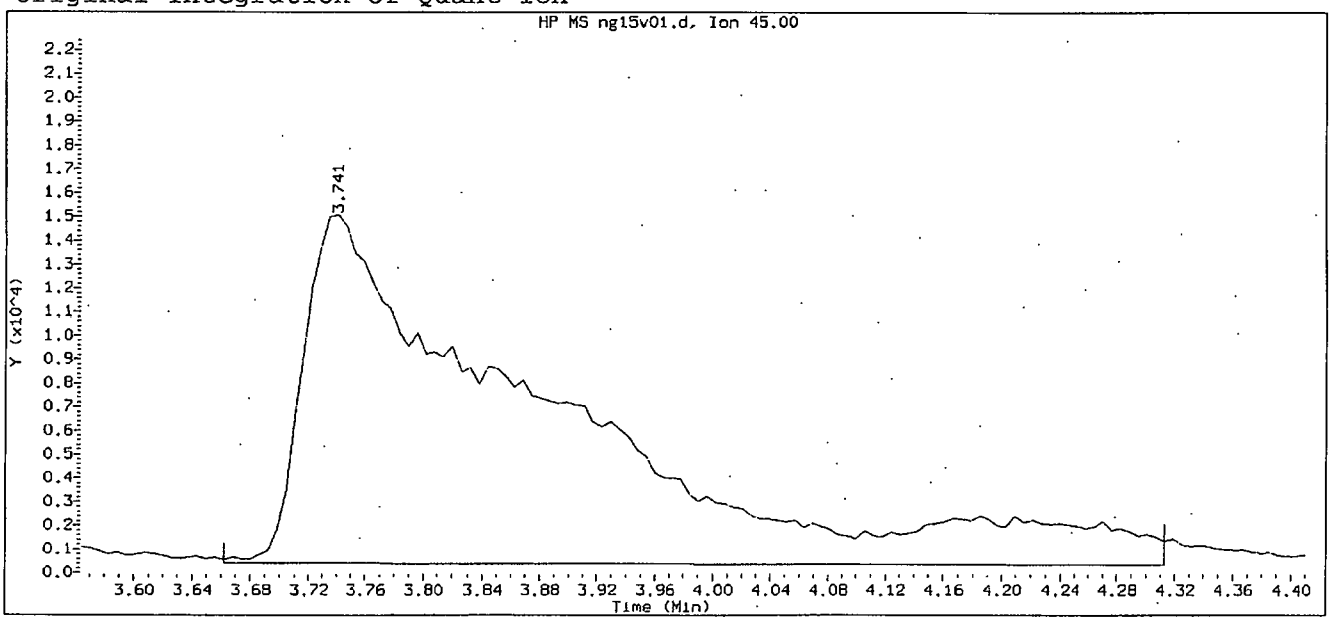
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: LBS 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

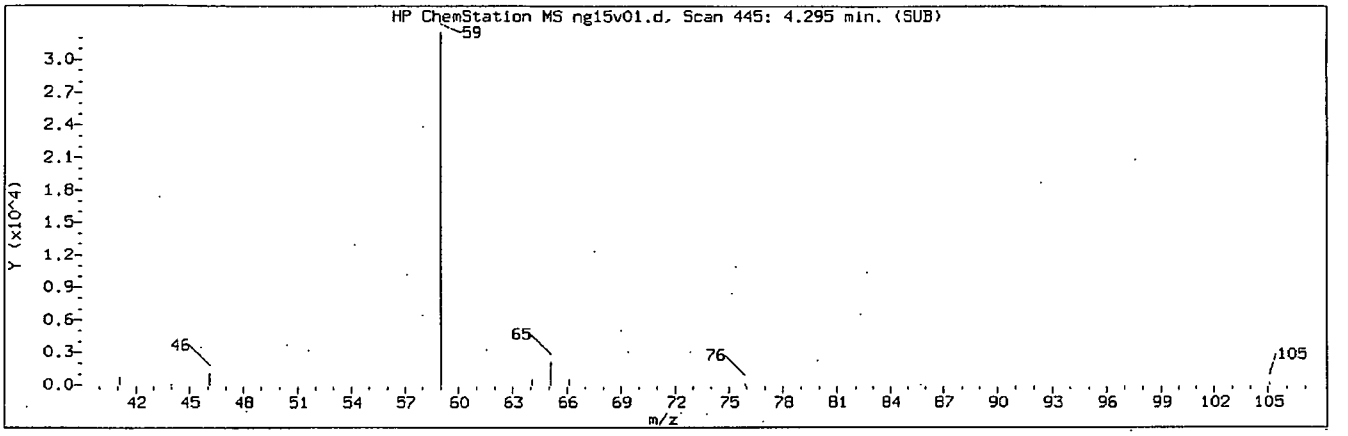
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 17:00 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

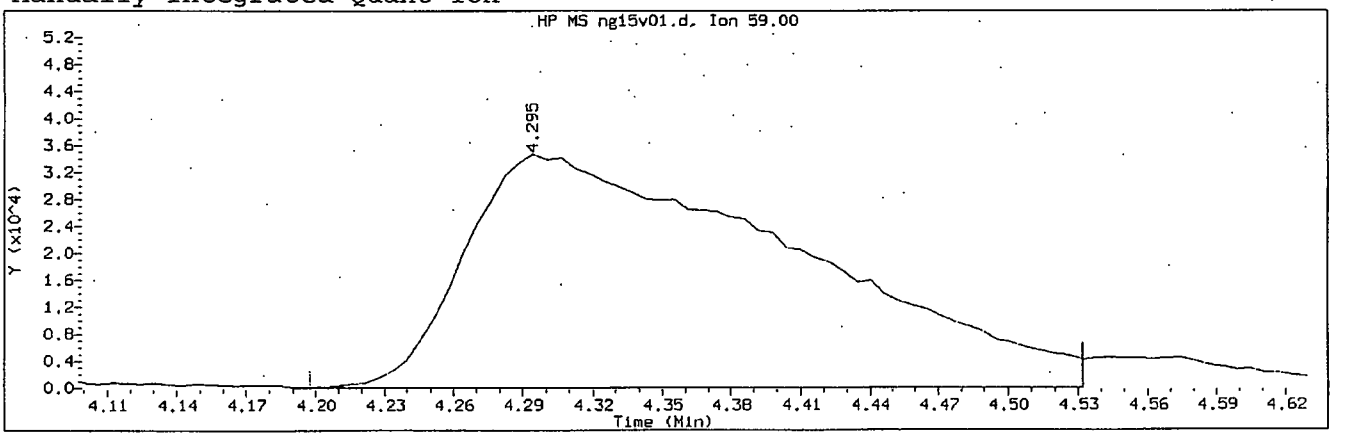
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 354		
Retention Time (minutes)	: 3.741		
Quant Ion	: 45.00		
Area	: 172314		
On-column Amount (ng)	: 149.8814		
Integration start scan	: 340	Integration stop scan:	447
Y at integration start	: 400	Y at integration end:	333

Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19.
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

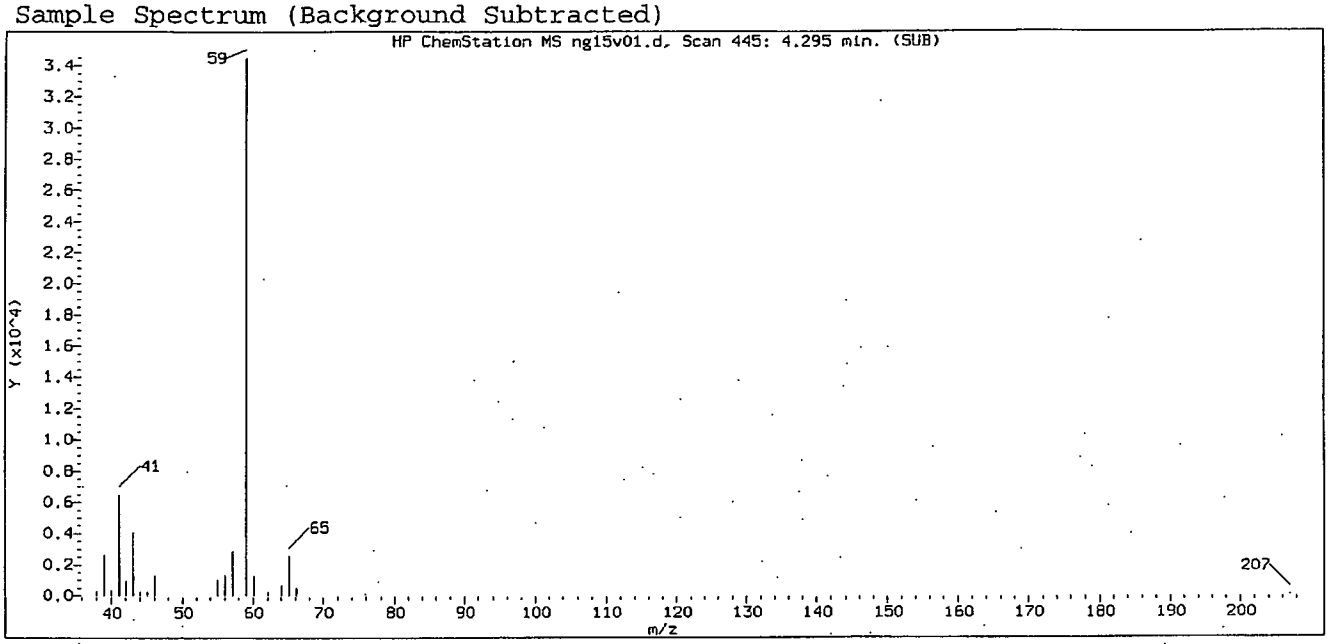
Compound Number	: 27		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 445		
Retention Time (minutes)	: 4.295		
Quant Ion	: 59.00		
Area (flag)	: 348209M		
On-Column Amount (ng)	: 182.2492		
Integration start scan	: 428	Integration stop scan:	483
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

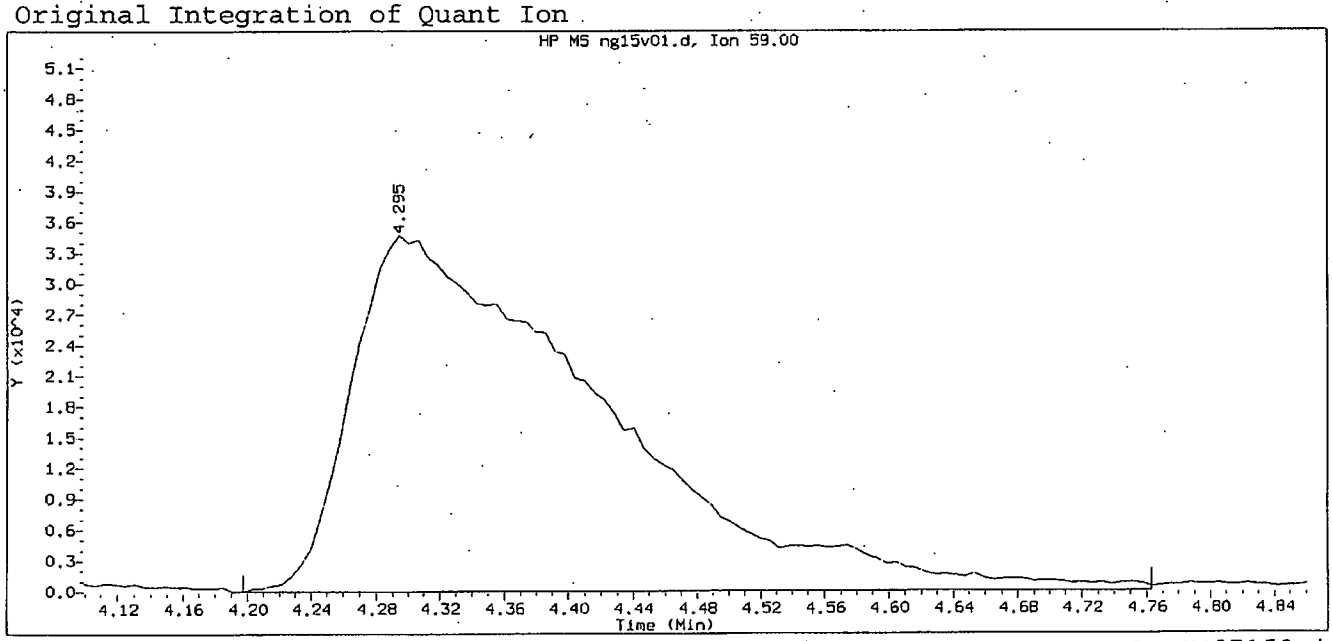
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

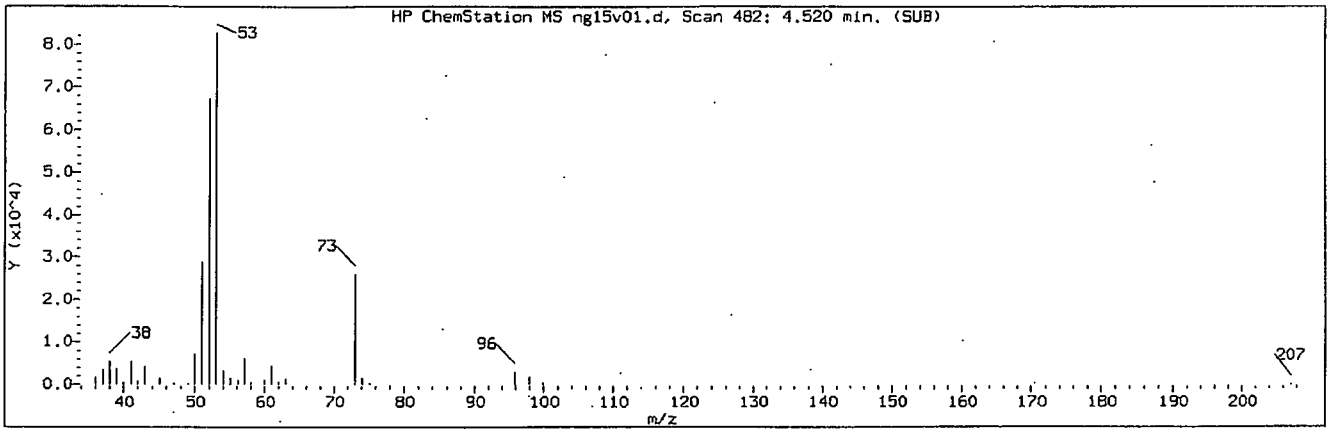
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 17:00 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

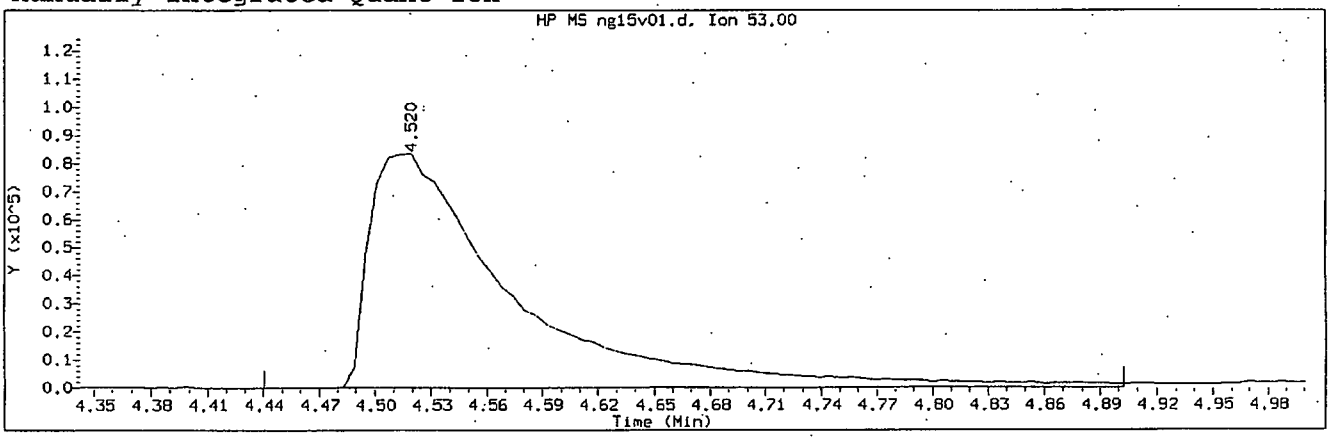
Compound Number	: 27		
Compound Name	: t-Butyl Alcohol		
Scan Number	: 445		
Retention Time (minutes)	: 4.295		
Quant Ion	: 59.00		
Area	: 376129		
On-column Amount (ng)	: 196.8618		
Integration start scan	: 428	Integration stop scan:	521
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

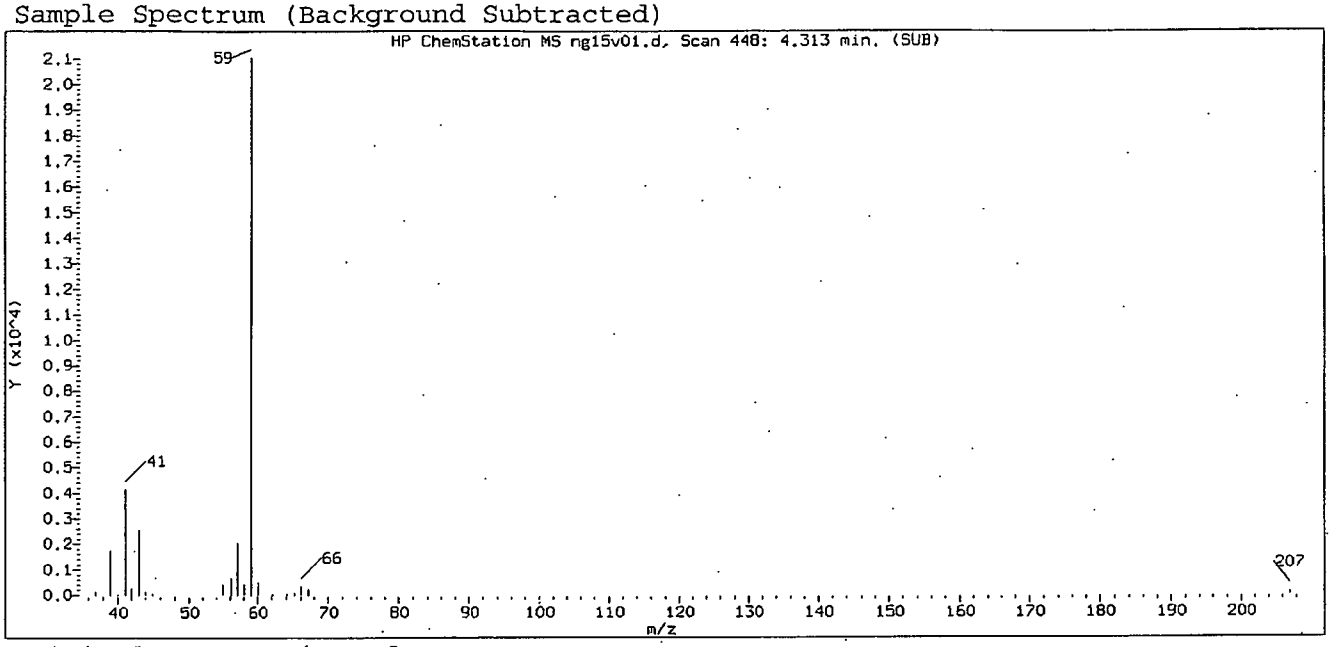
Compound Number	: 28		
Compound Name	: Acrylonitrile		
Scan Number	: 482		
Retention Time (minutes)	: 4.520		
Quant Ion	: 53.00		
Area (flag)	: 448034M		
On-Column Amount (ng)	: 99.8399		
Integration start scan	: 468	Integration stop scan:	544
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

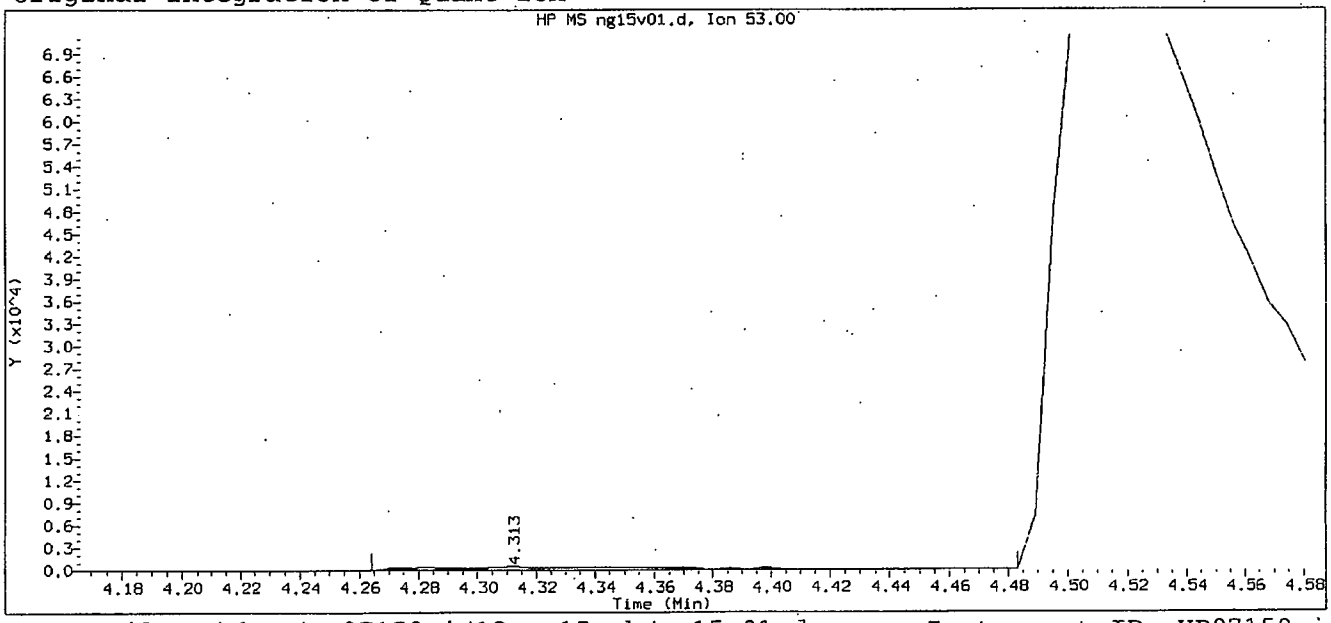
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

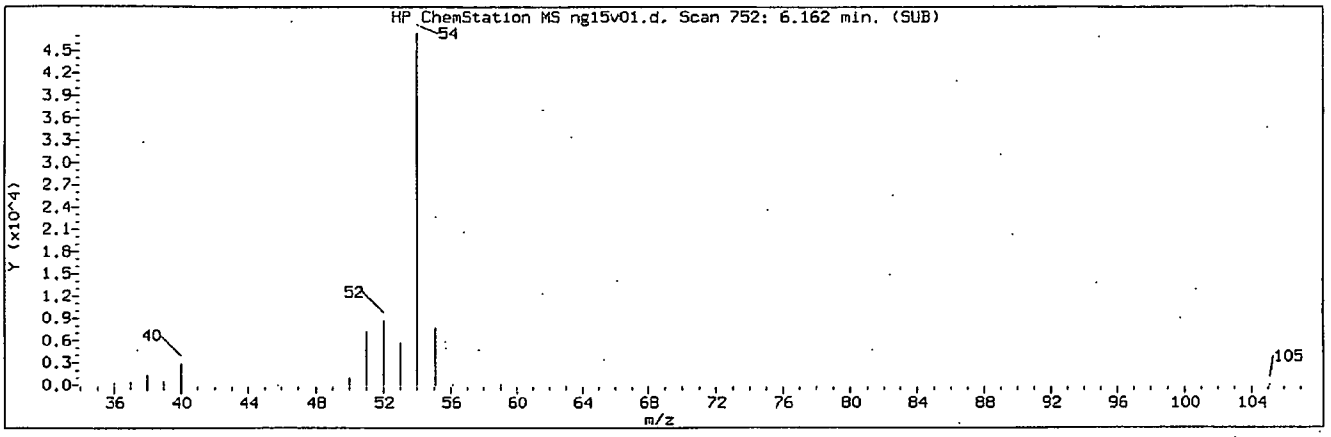
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 17:00 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

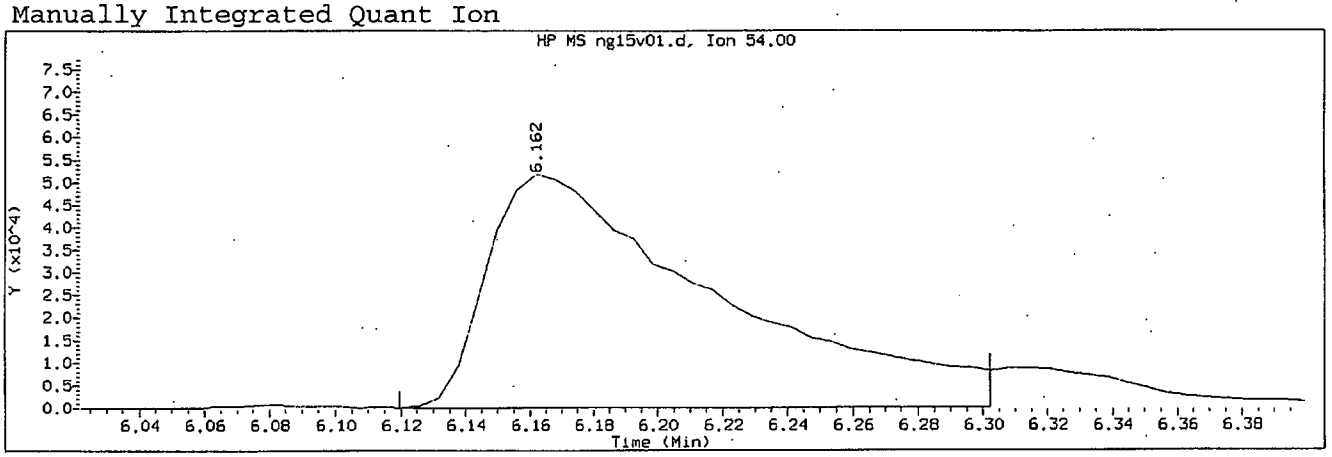
Compound Number	: 28		
Compound Name	: Acrylonitrile		
Scan Number	: 448		
Retention Time (minutes)	: 4.313		
Quant Ion	: 53.00		
Area	: 2298		
On-column Amount (ng)	: 0.5122		
Integration start scan	: 439	Integration stop scan:	475
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

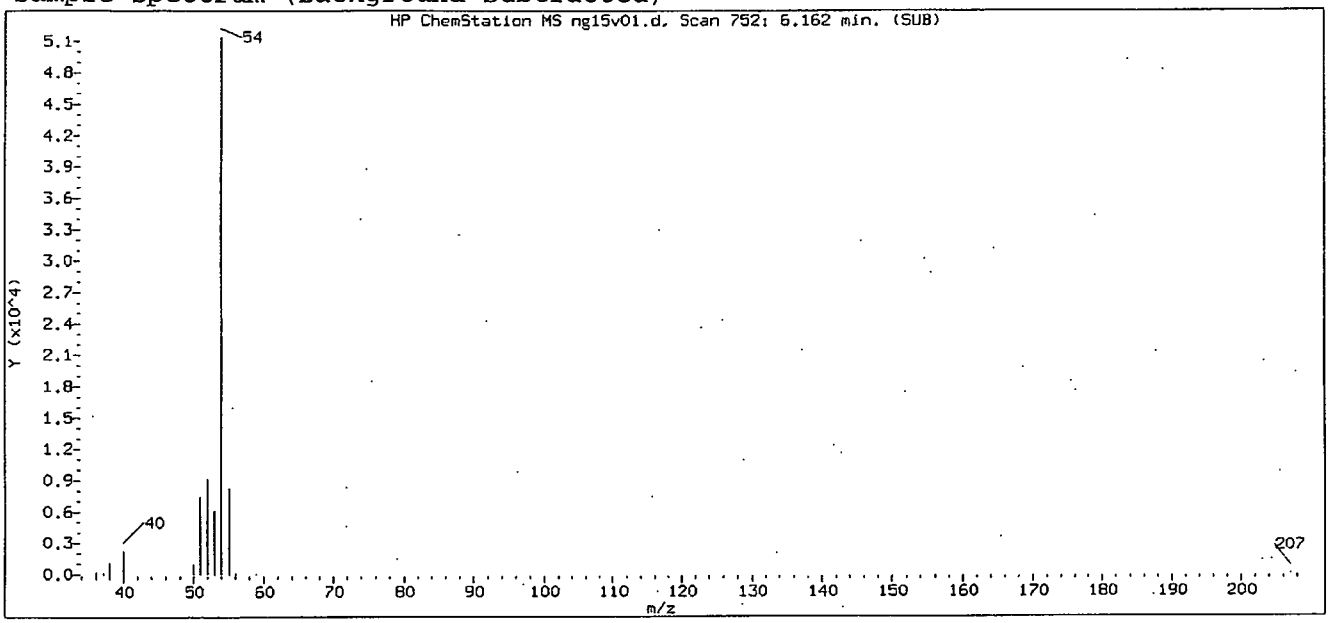
Compound Number	: 45		
Compound Name	: Propionitrile		
Scan Number	: 752		
Retention Time (minutes)	: 6.162		
Quant Ion	: 54.00		
Area (flag)	: 258152M		
On-Column Amount (ng)	: 127.8278		
Integration start scan	: 744	Integration stop scan:	774
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

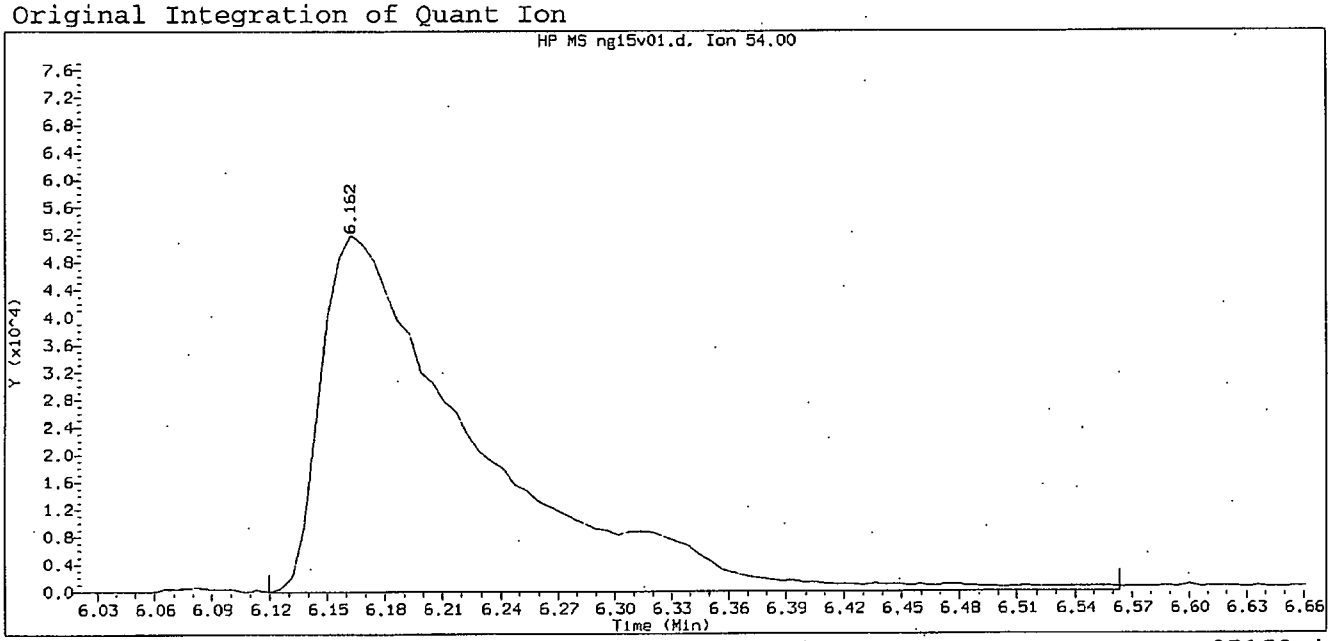
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

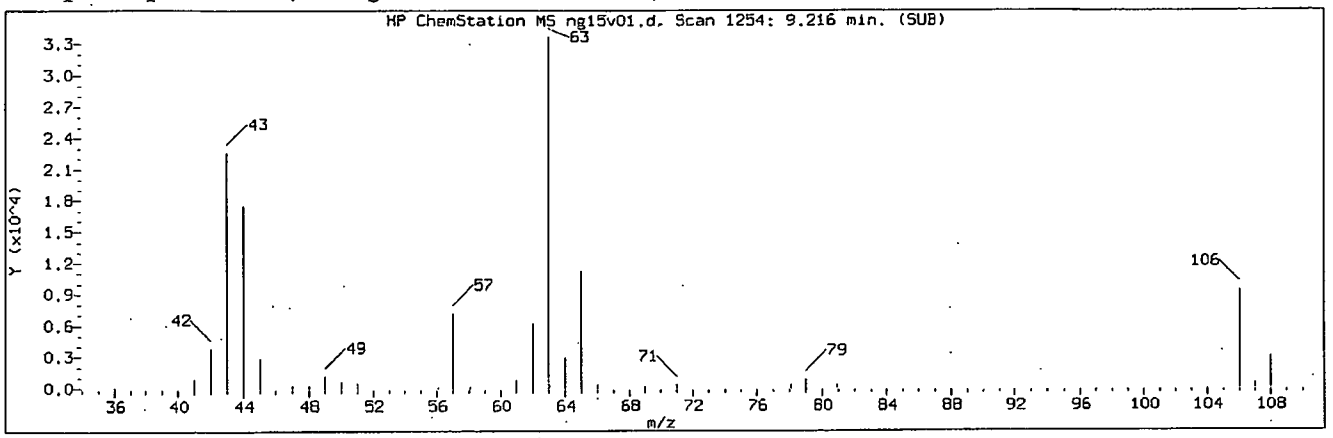
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 17:00 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

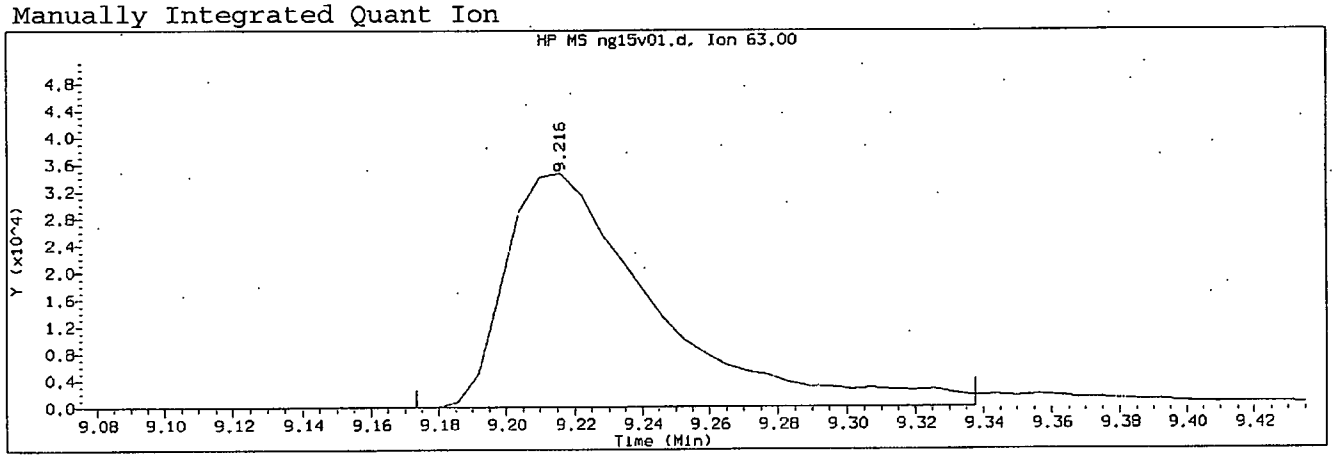
Compound Number	: 45		
Compound Name	: Propionitrile		
Scan Number	: 752		
Retention Time (minutes)	: 6.162		
Quant Ion	: 54.00		
Area	: 293551		
On-column Amount (ng)	: 145.3562		
Integration start scan	: 744	Integration stop scan:	817
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

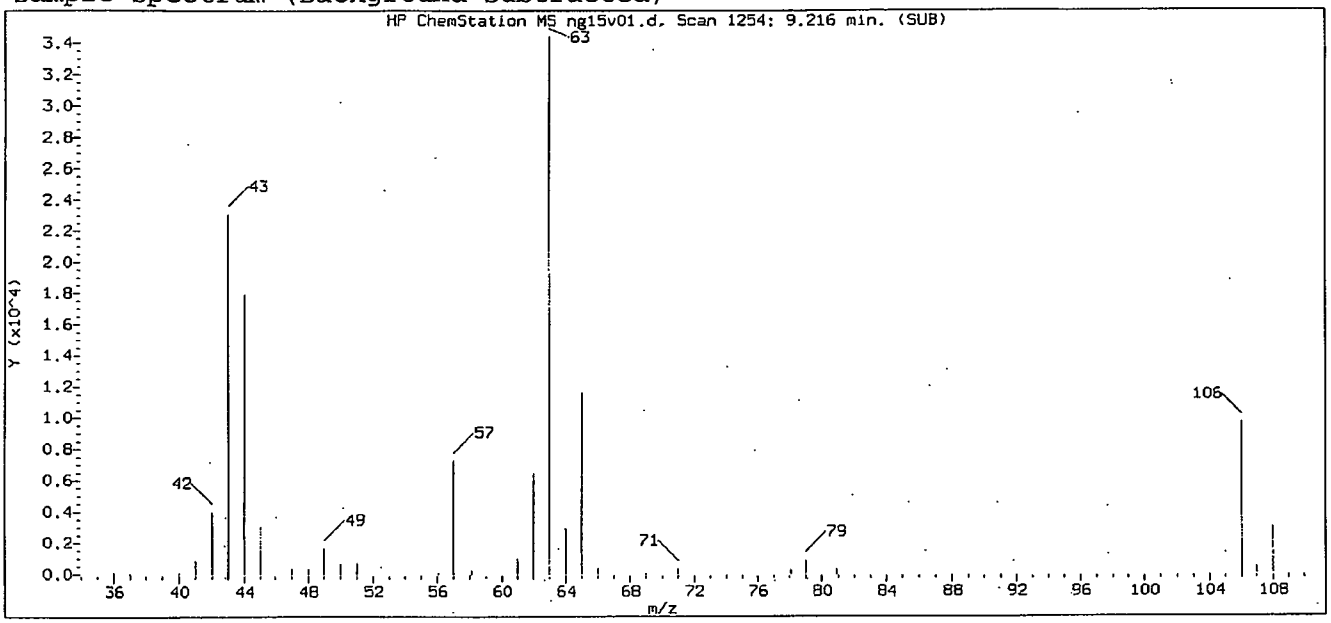
Compound Number	: 83		
Compound Name	: 2-Chloroethyl Vinyl Ether		
Scan Number	: 1254		
Retention Time (minutes)	: 9.216		
Quant Ion	: 63.00		
Area (flag)	: 106141M		
On-Column Amount (ng)	: 18.6417		
Integration start scan	: 1246	Integration stop scan:	1273
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

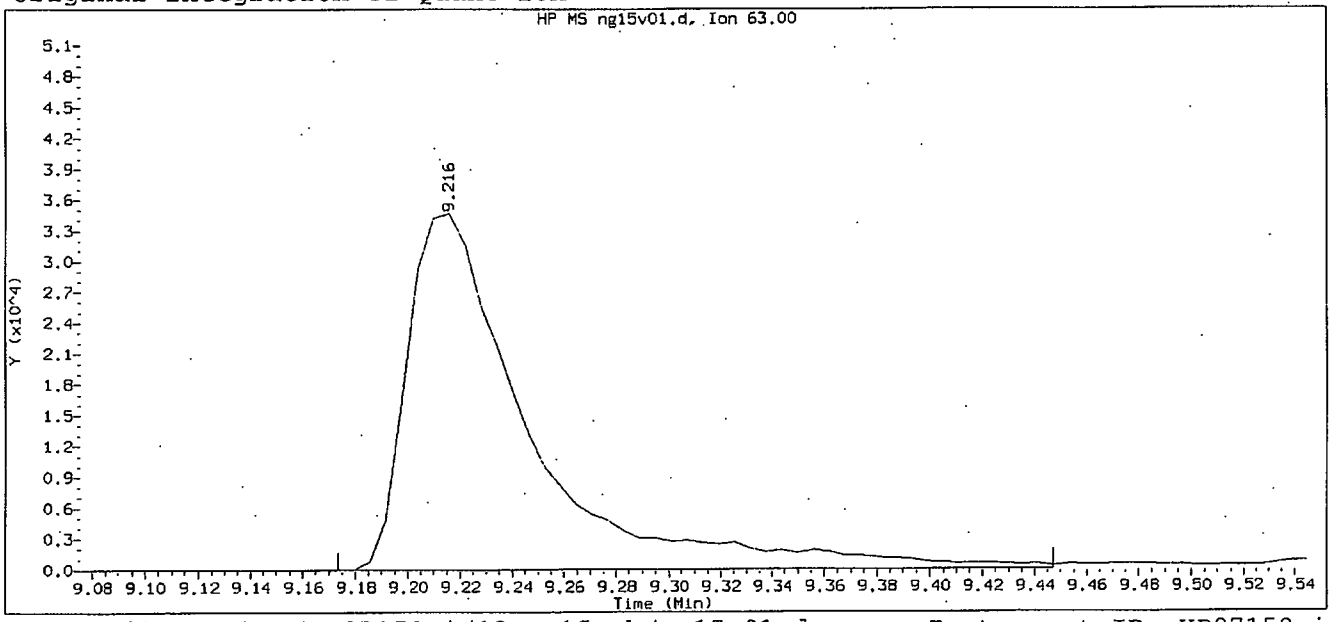
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

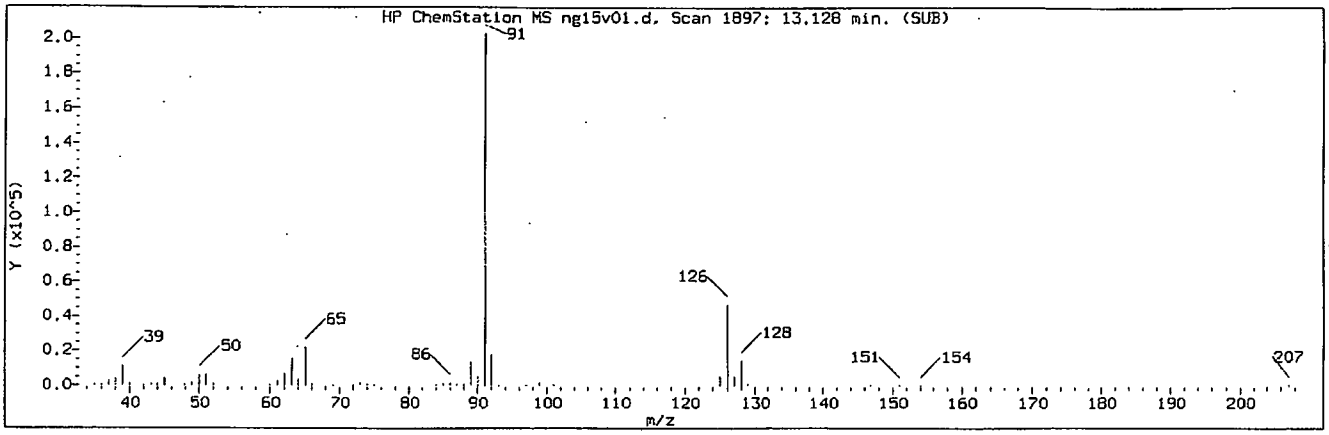
Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 17:00 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

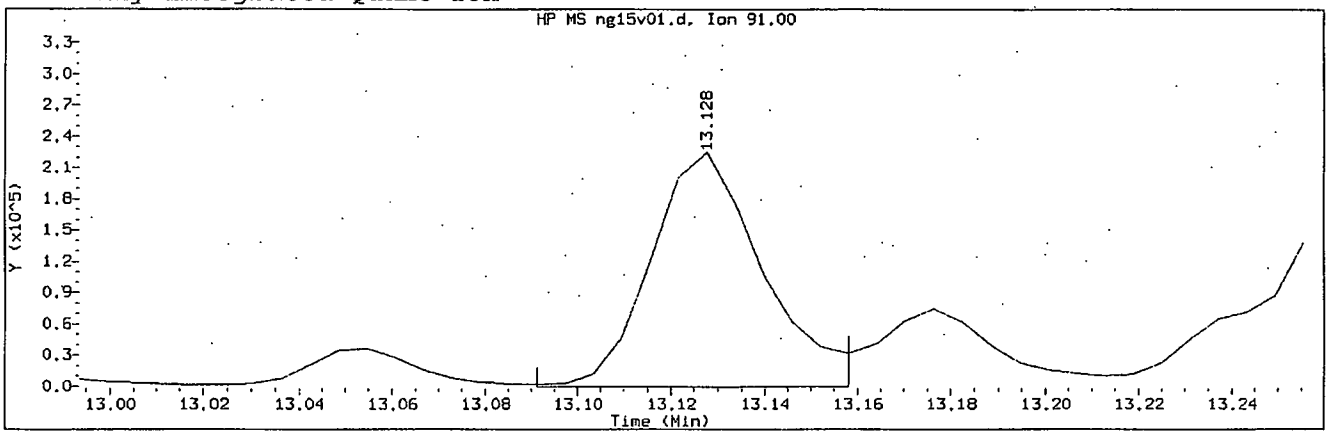
Compound Number	: 83		
Compound Name	: 2-Chloroethyl Vinyl Ether		
Scan Number	: 1254		
Retention Time (minutes)	: 9.216		
Quant Ion	: 63.00		
Area	: 112581		
On-column Amount (ng)	: 19.7729		
Integration start scan	: 1246	Integration stop scan:	1291
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19
Target 3.5 esignature user ID: sag03174

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 17-AUG-2012 15:11
Date, time and analyst ID of latest file update: 17-Aug-2012 15:17 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

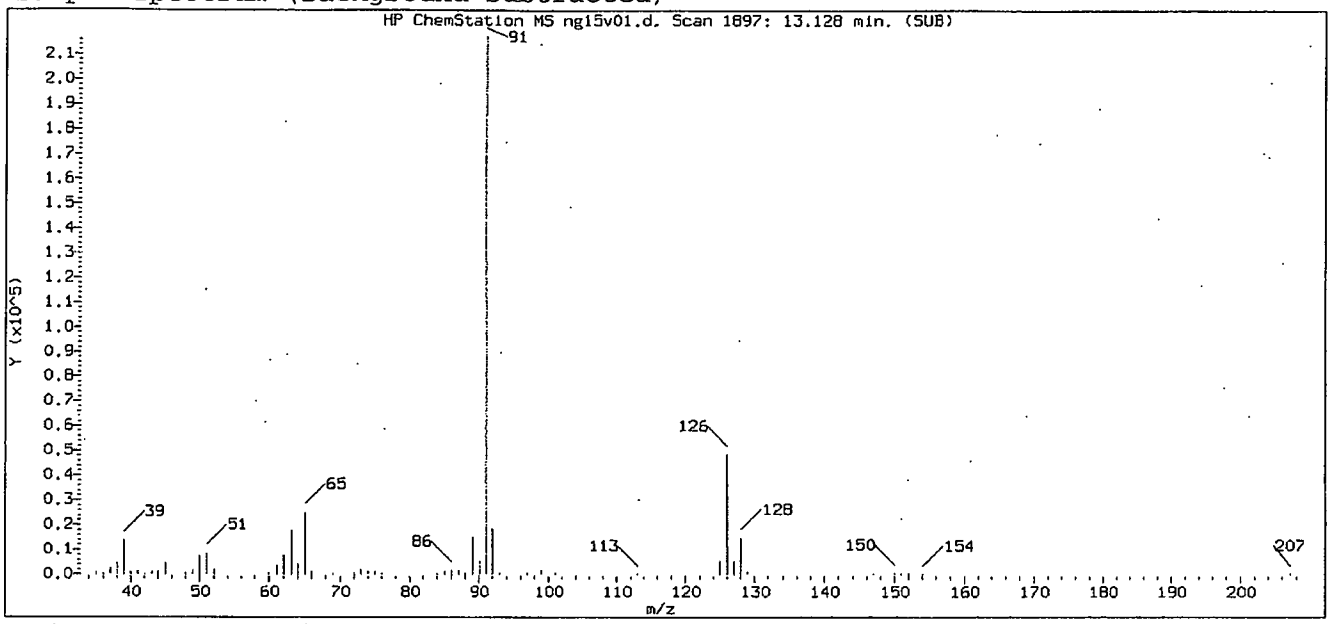
Compound Number	: 133		
Compound Name	: Benzyl Chloride		
Scan Number	: 1897		
Retention Time (minutes)	: 13.128		
Quant Ion	: 91.00		
Area (flag)	: 374175M		
On-Column Amount (ng)	: 16.5371		
Integration start scan	: 1890	Integration stop scan:	1901
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

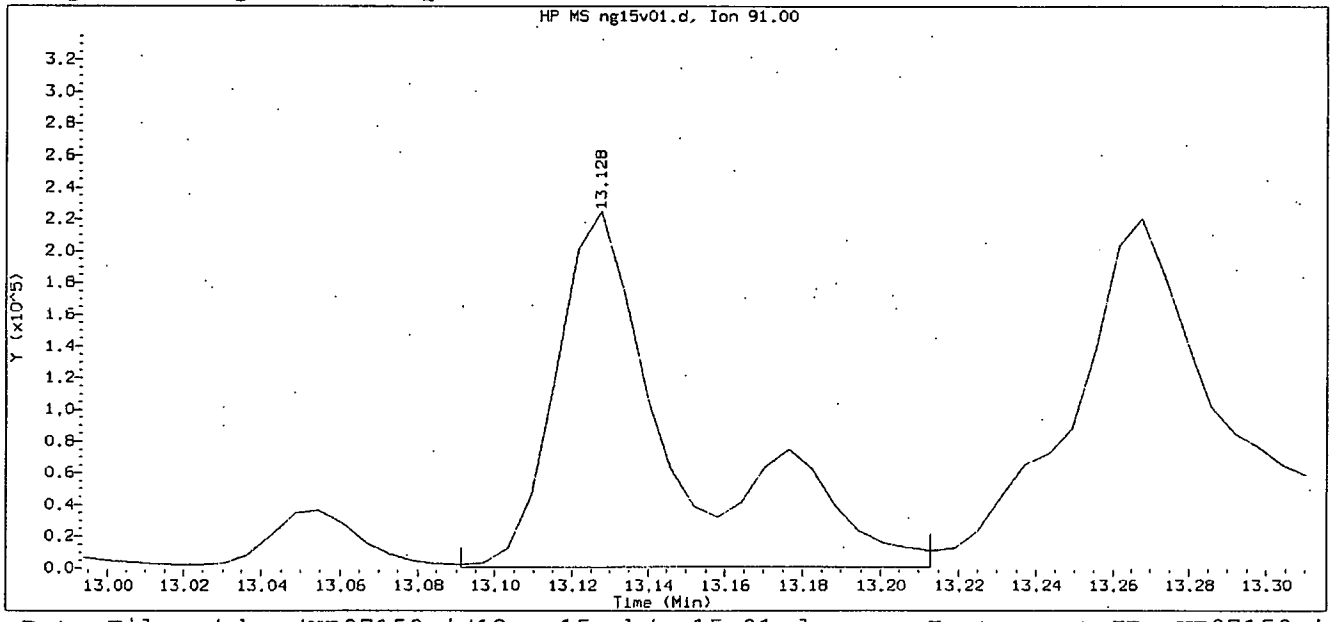
Analyst responsible for change: Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19. Target 3.5 esignature user ID: sag03174

GC/MS audit/management approval: _____ 8/17/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12aug15a.b/ng15v01.d Instrument ID: HP07159.i
Injection date and time: 15-AUG-2012 16:34 Analyst ID: ads01731

Method used: /chem/HP07159.i/12aug15a.b/N826W.m Sublist used: 8260W
Calibration date and time: 15-AUG-2012 16:31
Date, time and analyst ID of latest file update: 15-Aug-2012 17:00 sag03174

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compound Number	: 133		
Compound Name	: Benzyl Chloride		
Scan Number	: 1897		
Retention Time (minutes)	: 13.128		
Quant Ion	: 91.00		
Area	: 491790		
On-column Amount (ng)	: 23.6956		
Integration start scan	: 1890	Integration stop scan:	1910
Y at integration start	: 822	Y at integration end:	822

Digitally signed by Sarah A. Guill on 08/17/2012 at 15:19
Target 3.5 esignature user ID: sag03174

Data File: /chem/HP07159.i/12sep05b.b/ns05t05.d

Date : 05-SEP-2012 12:02

Client ID: BFB MAR28-12

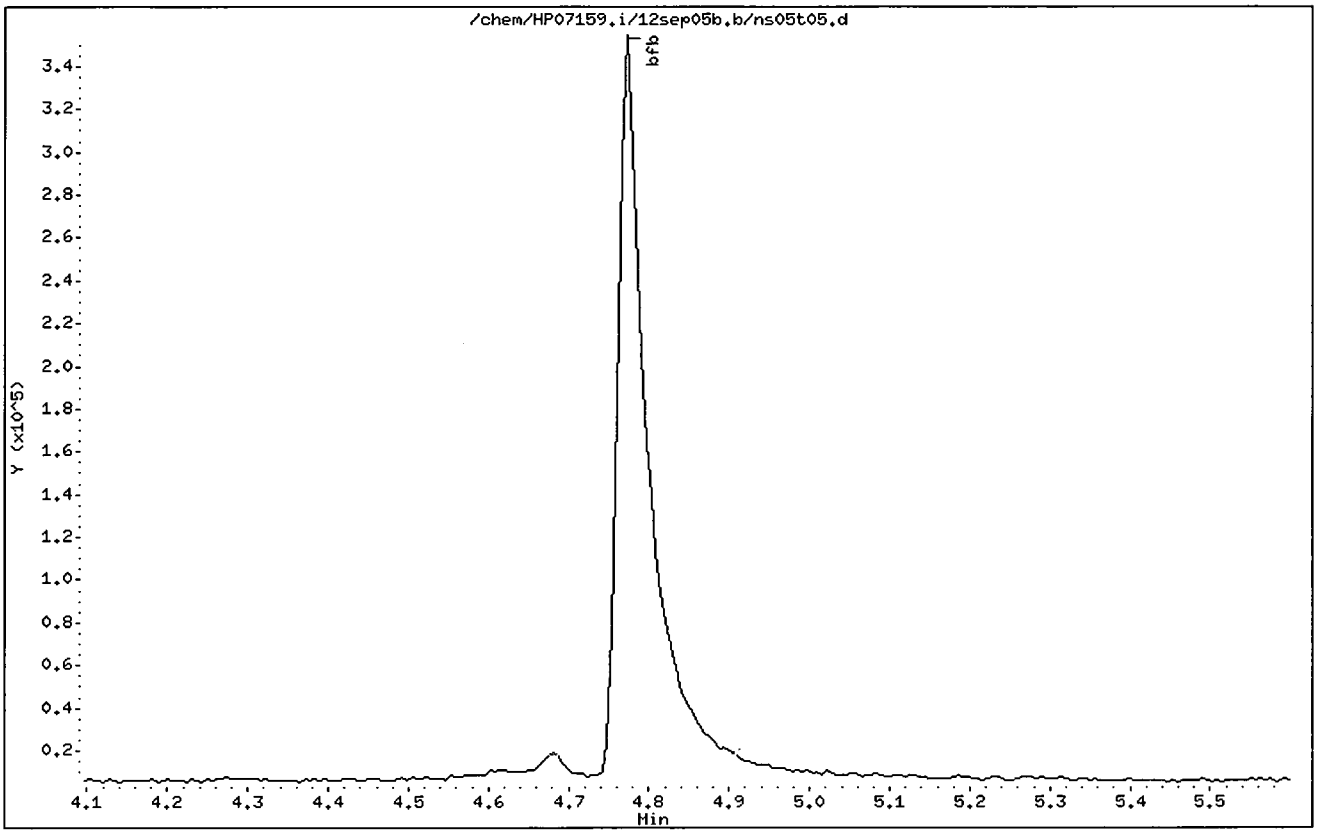
Instrument: HP07159.i

Sample Info: BFB MAR28-12;50NG BFB;1;2;;

Operator: ERS02237

Column phase: DB-624

Column diameter: 0.25



Digitally signed by Emily R. Styer on 09/05/2012 at 12:10.
Target 3.5 esignature user ID: ers02237

Data File: /chem/HP07159.i/12sep05b.b/ns05t05.d

Date : 05-SEP-2012 12:02

Client ID: BFB MAR28-12

Instrument: HP07159.i

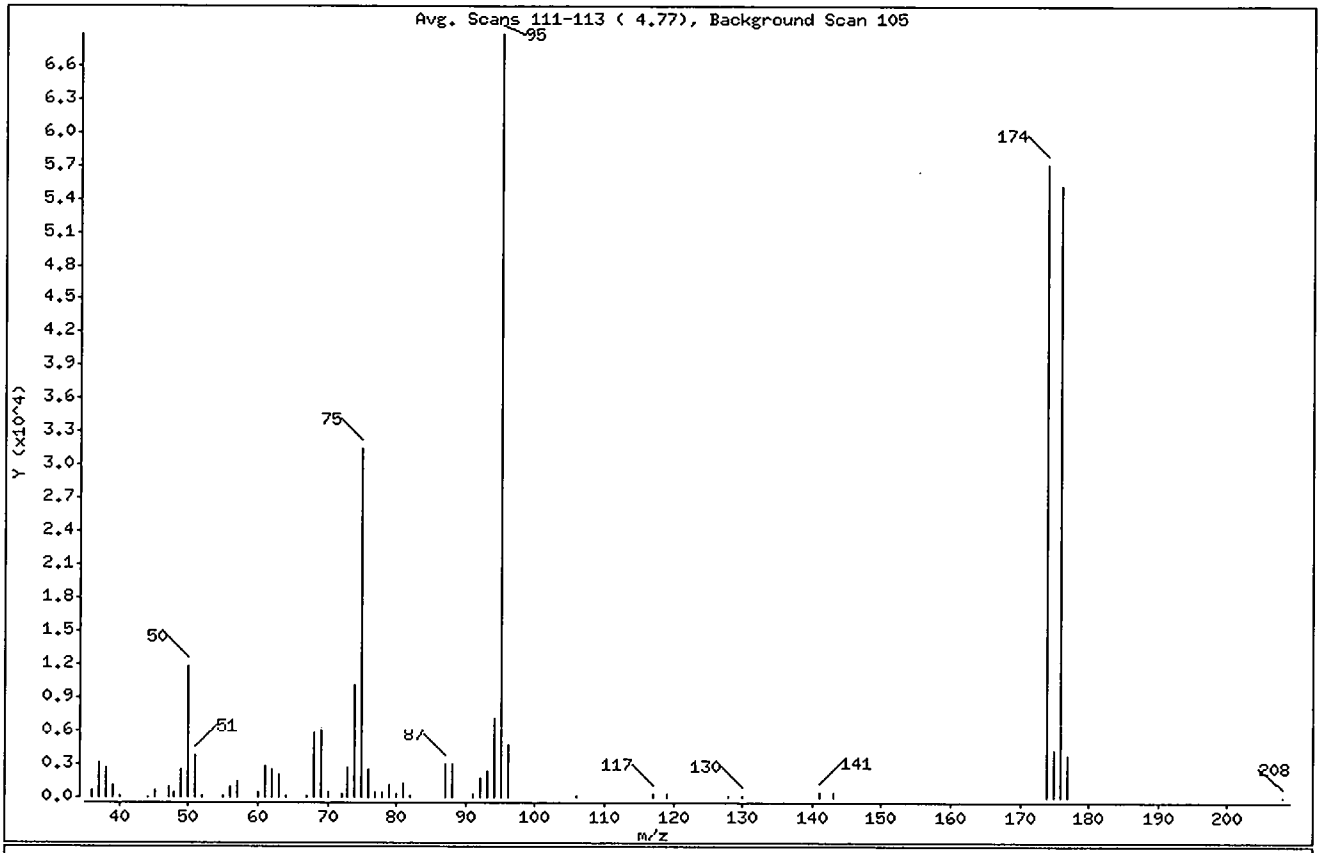
Sample Info: BFB MAR28-12;50NG BFB;1;2;;

Operator: ERS02237

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.20
75	30.00 - 60.00% of mass 95	45.86
96	5.00 - 9.00% of mass 95	7.01
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	82.97
175	5.00 - 9.00% of mass 174	6.11 (7.37)
176	95.00 - 101.00% of mass 174	80.14 (96.59)
177	5.00 - 9.00% of mass 176	5.41 (6.75)

Digitally signed by Emily R. Styer on 09/05/2012 at 12:10.
Target 3.5 esignature user ID: ers02237

Data File: /chem/HP07159.i/12sep05b.b/ns05t05.d

Date : 05-SEP-2012 12:02

Client ID: BFB MAR28-12

Instrument: HP07159.i

Sample Info: BFB MAR28-12;50NG BFB;1;2;;

Operator: ERS02237

Column phase: DB-624

Column diameter: 0.25

Data File: ns05t05.d
Spectrum: Avg. Scans 111-113 (4.77), Background Scan 105
Location of Maximum: 95.00
Number of points: 56

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	579	57.00	1498	77.00	528	117.00	385
37.00	3088	60.00	520	78.00	480	119.00	349
38.00	2627	61.00	2783	79.00	1141	128.00	93
39.00	1151	62.00	2577	80.00	369	130.00	178
40.00	148	63.00	2032	81.00	1202	141.00	529
44.00	7	64.00	84	82.00	203	143.00	464
45.00	579	67.00	105	87.00	3001	174.00	57080
47.00	976	68.00	5909	88.00	2989	175.00	4206
48.00	422	69.00	6224	91.00	292	176.00	55136
49.00	2485	70.00	514	92.00	1670	177.00	3720
50.00	11831	72.00	361	93.00	2303	208.00	9
51.00	3811	73.00	2693	94.00	7195		
52.00	85	74.00	10124	95.00	68800		
55.00	94	75.00	31552	96.00	4820		
56.00	885	76.00	2563	106.00	93		

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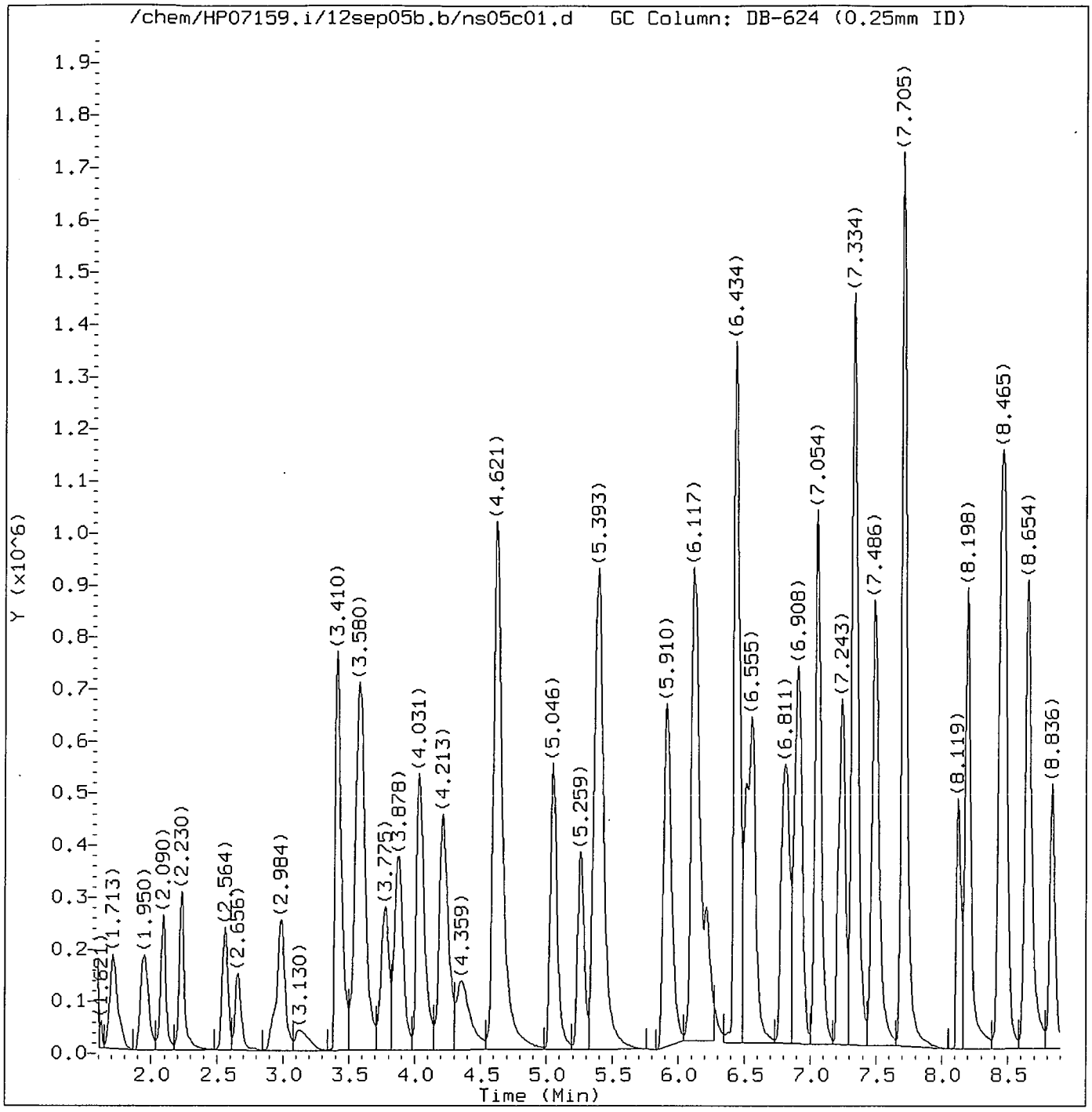
Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

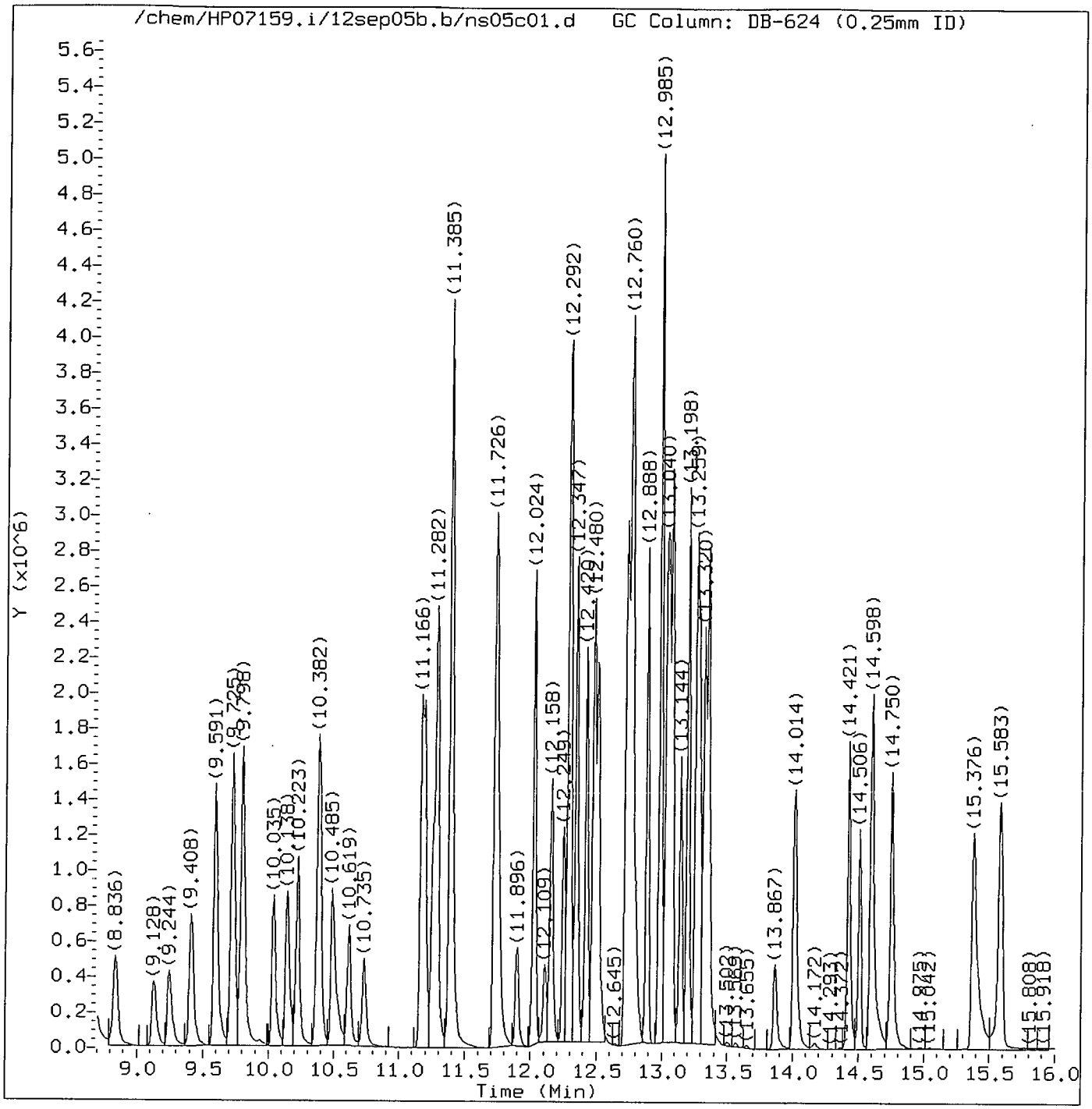
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Emily R. Styer
on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d
Injection date and time: 05-SEP-2012 12:18

Instrument ID: HP07159.i
Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m
Calibration date and time: 05-SEP-2012 12:39

Sublist used: 8260WI

Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Emily R. Styer
on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.950	85	494793	49.780
3) Chloromethane	(1)	2.090	50	409045	46.218
4) Vinyl Chloride	(1)	2.230	62	426436	47.597
5) Bromomethane	(1)	2.564	94	272805	50.323
7) Chloroethane	(1)	2.656	64	231681	50.517
8) Trichlorofluoromethane	(1)	2.984	101	521187	52.325
12) Ethanol	(4)	3.136	45	172119M	1154.534
13) Acrolein	(4)	3.410	56	1308034	509.052
16) 1,1-Dichloroethene	(1)	3.574	96	332819	54.121
18) Freon 113	(1)	3.586	101	341033	54.560
19) Acetone	(1)	3.617	58	139549	110.000
20) Methyl Iodide	(1)	3.769	142	609113	56.040
21) 2-Propanol	(4)	3.793	45	259433M	235.870
22) Carbon Disulfide	(1)	3.878	76	1166010	56.070
23) Allyl Chloride	(1)	4.031	41	622702	47.951
24) Methyl Acetate	(1)	4.061	43	442086	47.707
25) Methylene Chloride	(1)	4.213	84	399217	50.979
26)*t-Butyl Alcohol-d10	(4)	4.237	65	379512	250.000
27) t-Butyl Alcohol	(4)	4.365	59	413371	226.144
28) Acrylonitrile	(1)	4.596	53	238035	51.571
29) trans-1,2-Dichloroethene	(1)	4.627	96	381167	53.815
30) Methyl Tertiary Butyl Ether	(1)	4.627	73	1273065	51.208
34) n-Hexane	(1)	5.046	57	537762	56.716
36) 1,1-Dichloroethane	(1)	5.253	63	713761	52.812
33) 1,2-Dichloroethene (total)	(1)		96	797012	105.149
37) di-Isopropyl Ether	(1)	5.375	45	1321817	52.333
38) 2-Chloro-1,3-Butadiene	(1)	5.405	53	544847	50.279
39) Ethyl t-Butyl Ether	(1)	5.910	59	1241965	50.269
40) cis-1,2-Dichloroethene	(1)	6.117	96	415845	51.334
44) 2,2-Dichloropropane	(1)	6.123	77	514196	52.620
42) 2-Butanone	(1)	6.141	43	634481	105.978
45) Propionitrile	(4)	6.221	54	433244M	224.234
47) Methacrylonitrile	(1)	6.434	67	604541	117.568
48) Bromochloromethane	(1)	6.440	128	213591	51.392
49) Tetrahydrofuran	(4)	6.513	71	188260	105.685
50) Chloroform	(1)	6.561	83	645497	50.633
51)$Dibromofluoromethane	(1)	6.786	113	348901	51.633
52)$Dibromofluoromethane(mz111)	(1)	6.786	111	355558	51.512

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Emily R. Styer
on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(1)	6.823	97	519107	49.495
54) Cyclohexane (mz 84)	(1)	6.908	84	563287	51.555
55) Cyclohexane (mz 69)	(1)	6.908	69	208676	50.789
56) Cyclohexane	(1)	6.908	56	685892	52.270
59) Carbon Tetrachloride	(1)	7.054	117	439044	57.118
58) 1,1-Dichloropropene	(1)	7.054	75	528524	48.948
61) Isobutyl Alcohol	(4)	7.218	41	350061	602.835
64)$1,2-Dichloroethane-d4(mz104)	(1)	7.249	104	58878	51.303
63)$1,2-Dichloroethane-d4(mz65)	(1)	7.249	65	398564M	50.200
62)$1,2-Dichloroethane-d4	(1)	7.249	102	90534	50.092
65) Benzene	(1)	7.328	78	1596463	51.412
67) 1,2-Dichloroethane (mz 98)	(1)	7.346	98	52720	51.941
66) 1,2-Dichloroethane	(1)	7.346	62	520251	52.893
68) t-Amyl Methyl Ether	(1)	7.486	73	1195346	50.115
69) n-Heptane	(1)	7.705	43	459042	50.891
70)*Fluorobenzene	(1)	7.711	96	1511702M	50.000
71) n-Butanol	(4)	8.125	56	588131	1157.528
74) Trichloroethene	(1)	8.198	95	393350	51.207
75) Methylcyclohexane	(1)	8.447	83	609781	47.810
76) 1,2-Dichloropropane	(1)	8.478	63	446807	52.024
78) Dibromomethane	(1)	8.636	93	270454	52.024
77) Methyl Methacrylate	(1)	8.654	69	411168	47.410
80) 1,4-Dioxane	(4)	8.666	88	98617	698.996
81) Bromodichloromethane	(1)	8.836	83	485110	56.008
82) 2-Nitropropane	(4)	9.128	41	332477	131.092
83) 2-Chloroethyl Vinyl Ether	(1)	9.244	63	299982	51.223
84) cis-1,3-Dichloropropene	(1)	9.408	75	649021	51.841
85) 4-Methyl-2-Pentanone	(1)	9.591	43	1393275	108.044
86)$Toluene-d8	(2)	9.725	98	1501401	50.547
87)$Toluene-d8(mz100)	(2)	9.725	100	1003146	50.499
88) Toluene	(2)	9.798	92	1013690	50.388
89) trans-1,3-Dichloropropene	(2)	10.035	75	620688	52.088
90) Ethyl Methacrylate	(2)	10.138	69	674228	46.277
91) 1,1,2-Trichloroethane	(2)	10.223	97	400808	50.421
93) Tetrachloroethene	(2)	10.376	166	427679	55.712
94) 1,3-Dichloropropane	(2)	10.394	76	702434	50.864
95) 2-Hexanone	(2)	10.485	43	1046499	109.289
96) Dibromochloromethane	(2)	10.619	129	412363	53.374

M = Compound was manually integrated.
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Digitally signed by Emily R. Styer
on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) 1,2-Dibromoethane	(2)	10.735	107	428090	51.856
98)*Chlorobenzene-d5	(2)	11.166	117	1061639	50.000
100) Chlorobenzene	(2)	11.191	112	1142575	51.382
101) 1,1,1,2-Tetrachloroethane	(2)	11.258	131	375451	54.413
102) Ethylbenzene	(2)	11.282	91	1863916	50.620
103) m+p-Xylene	(2)	11.385	106	1516696	101.452
104) Xylene (Total)	(2)		106	2253945	151.643
106) o-Xylene	(2)	11.726	106	737249	50.191
109) Styrene	(2)	11.744	104	1242011	50.568
110) Bromoform	(2)	11.896	173	317729	55.408
111) Isopropylbenzene	(2)	12.024	105	1842718	50.732
112) Cyclohexanone	(4)	12.109	55	269504	472.152
115)$4-Bromofluorobenzene(mz174)	(2)	12.158	174	466170	55.119
114)$4-Bromofluorobenzene	(2)	12.158	95	544739	50.443
116) 1,1,2,2-Tetrachloroethane	(3)	12.249	83	650512	44.987
117) Bromobenzene	(3)	12.286	156	496535	49.043
118) trans-1,4-Dichloro-2-Butene	(3)	12.292	53	413731	115.344
119) 1,2,3-Trichloropropane	(3)	12.292	110	183996	45.479
120) n-Propylbenzene	(3)	12.347	91	2142894	47.961
121) 2-Chlorotoluene	(3)	12.426	126	446378	46.967
122) 1,3,5-Trimethylbenzene	(3)	12.480	105	1557068	46.940
123) 4-Chlorotoluene	(3)	12.511	126	489208	47.063
124) tert-Butylbenzene	(3)	12.724	134	352409	48.633
125) Pentachloroethane	(3)	12.748	167	300453	51.790
126) 1,2,4-Trimethylbenzene	(3)	12.766	105	1625749	48.336
127) sec-Butylbenzene	(3)	12.888	105	1863590	47.709
128) p-Isopropyltoluene	(3)	12.985	119	1650469	49.663
129) 1,3-Dichlorobenzene	(3)	12.985	146	880860	51.577
130)*1,4-Dichlorobenzene-d4	(3)	13.028	152	629939	50.000
131) 1,4-Dichlorobenzene	(3)	13.046	146	996068	46.076
132) 1,2,3-Trimethylbenzene	(3)	13.077	105	1692750	46.963
133) Benzyl Chloride	(3)	13.144	91	1149412	43.635
134) 1,3-Diethylbenzene	(3)	13.198	105	975848	47.519
135) 1,4-Diethylbenzene	(3)	13.259	105	917445	46.779
136) n-Butylbenzene	(3)	13.283	92	829717	47.336
137) 1,2-Dichlorobenzene	(3)	13.320	146	920809	46.977
138) 1,2-Diethylbenzene	(3)	13.350	105	992357	45.314
139) 1,2-Dibromo-3-Chloropropane	(3)	13.867	75	143208	43.261

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Emily R. Styer
on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

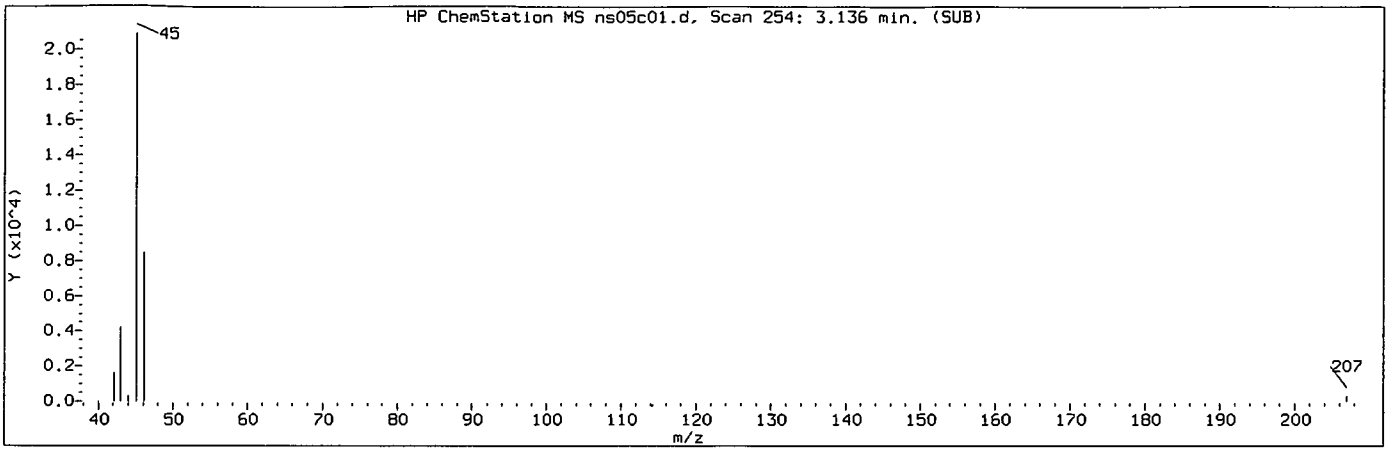
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

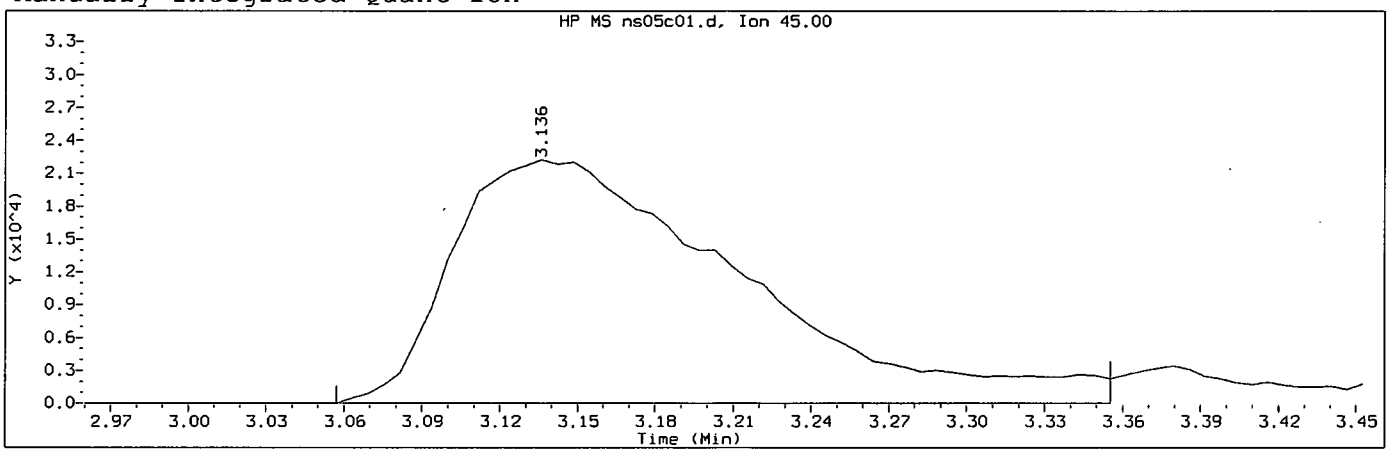
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
140) 1,2,4-Trichlorobenzene	(3)	14.421	180	628825	46.879
141) Hexachlorobutadiene	(3)	14.506	225	235980	50.663
142) Naphthalene	(3)	14.598	128	2225624	44.396
144) 1,2,3-Trichlorobenzene	(3)	14.750	180	631991	46.944
145) 2-Methylnaphthalene	(3)	15.376	142	1187308	40.394

Digitally signed by Emily R. Styer
on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

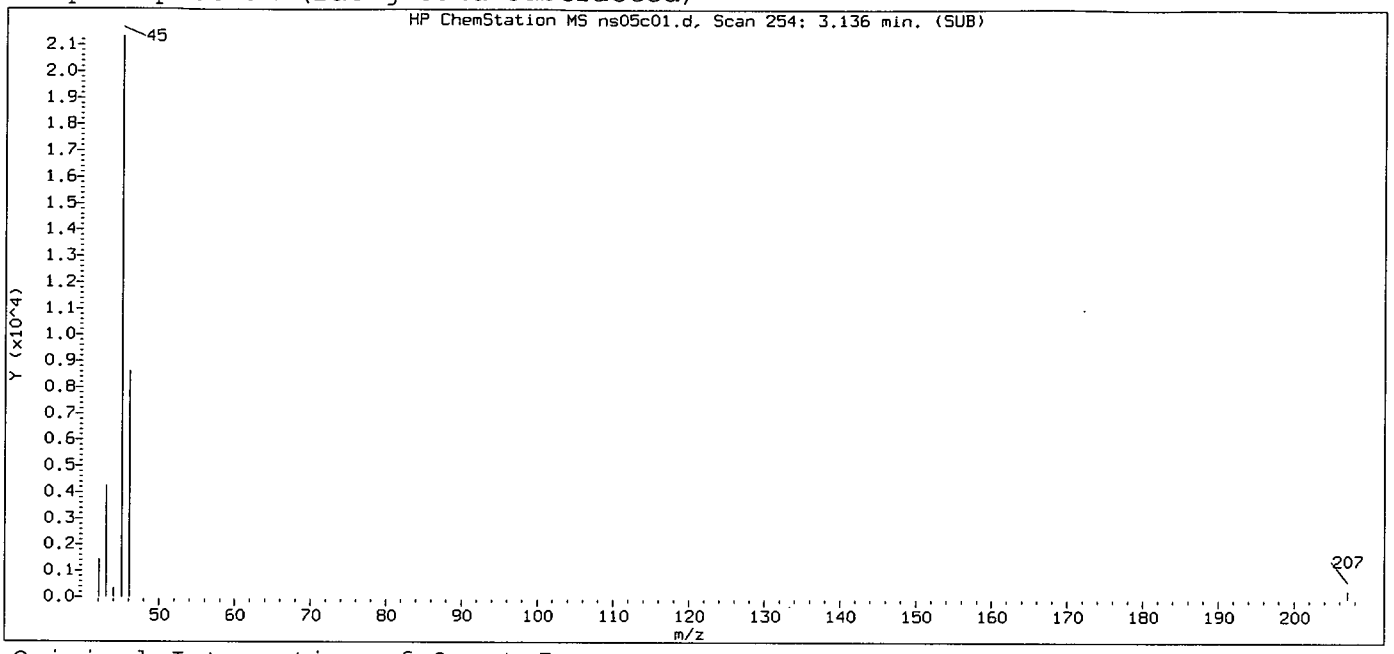
Compound Number	: 12		
Compound Name	: Ethanol		
Scan Number	: 254		
Retention Time (minutes)	: 3.136		
Quant Ion	: 45.00		
Area (flag)	: 172119M		
On-Column Amount (ng)	: 1154.5340		
Integration start scan	: 240	Integration stop scan:	289
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

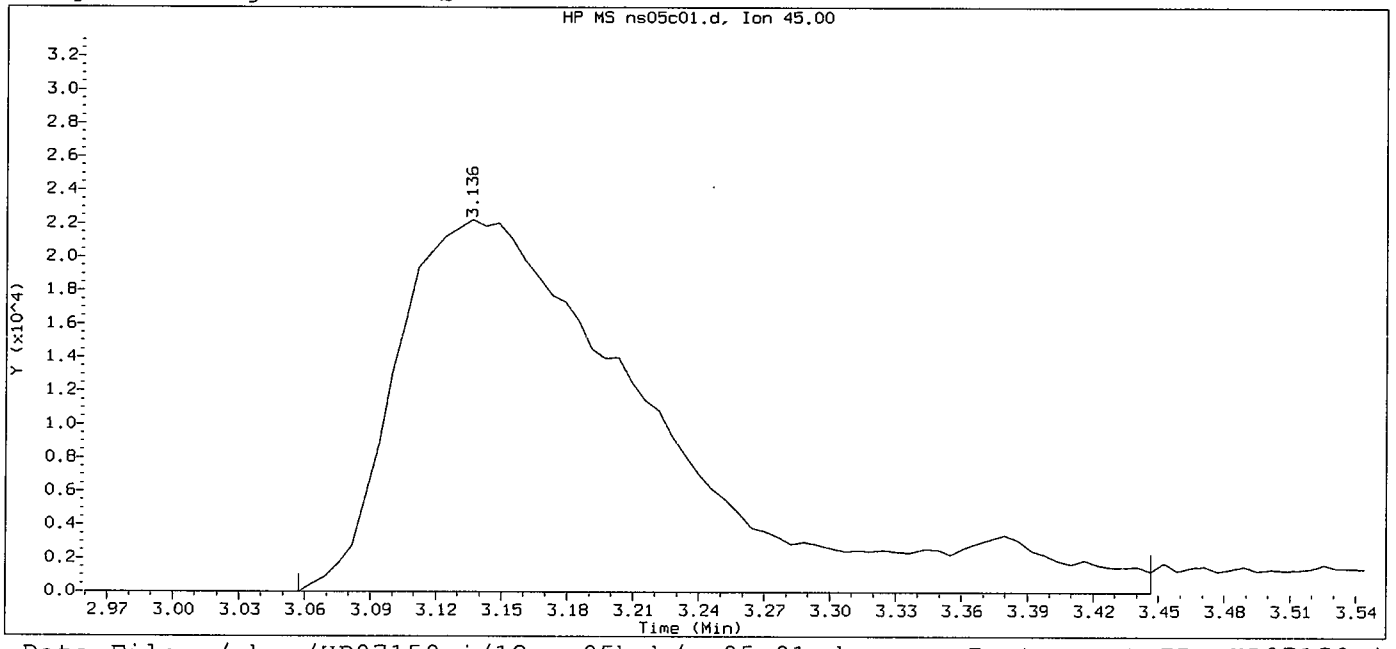
Analyst responsible for change: Digitally signed by Emily R. Styer on 09/05/2012 at 12:42. Target 3.5 esignature user ID: ers02237

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

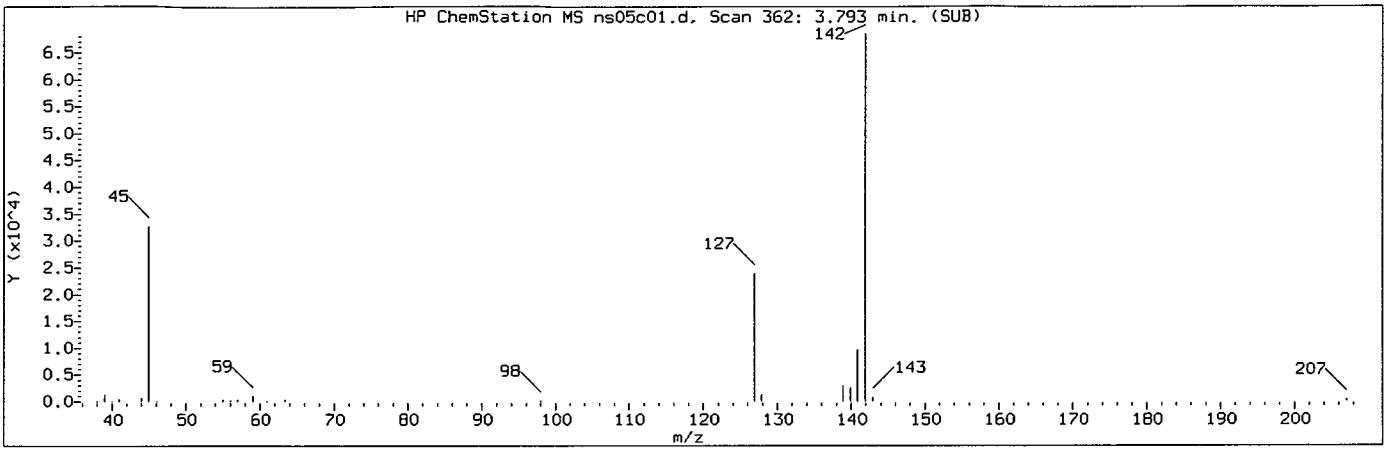
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:39 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

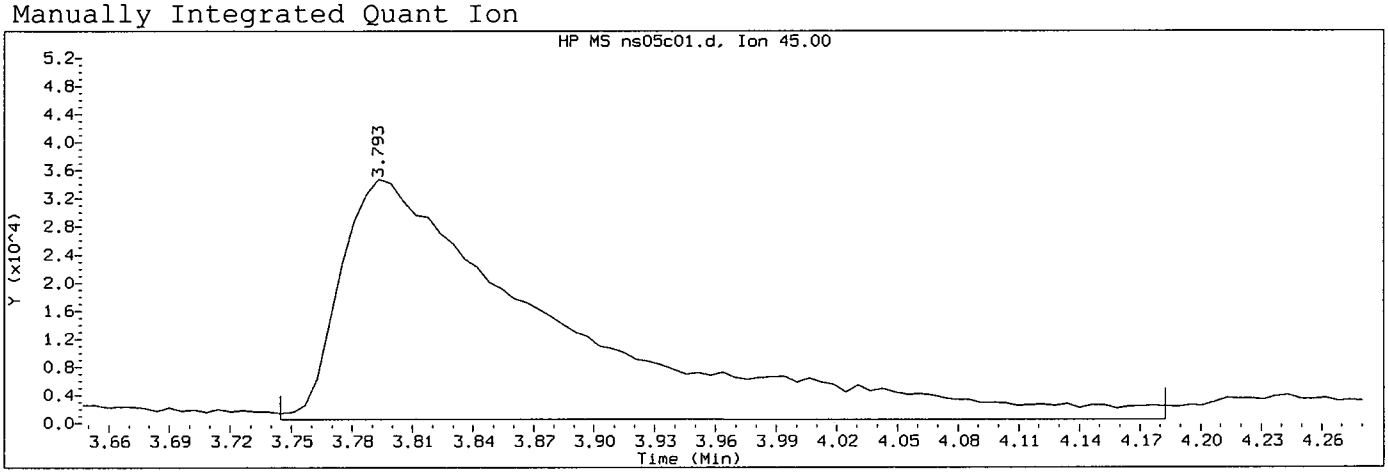
Compound Number	: 12		
Compound Name	: Ethanol		
Scan Number	: 254		
Retention Time (minutes)	: 3.136		
Quant Ion	: 45.00		
Area	: 183897		
On-column Amount (ng)	: 1233.5382		
Integration start scan	: 240	Integration stop scan:	304
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Emily R. Styer on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

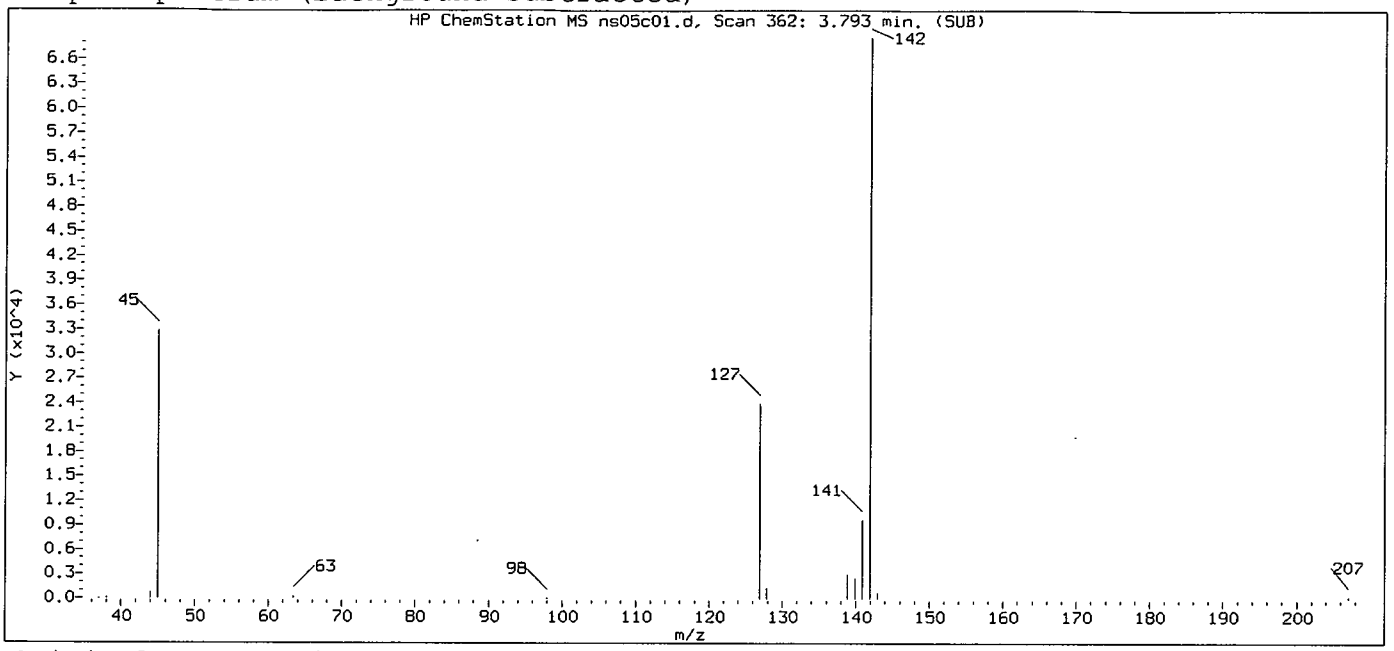
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 362		
Retention Time (minutes)	: 3.793		
Quant Ion	: 45.00		
Area (flag)	: 259433M		
On-Column Amount (ng)	: 235.8700		
Integration start scan	: 353	Integration stop scan:	425
Y at integration start	: 550	Y at integration end:	532

Reason for manual integration: improper integration

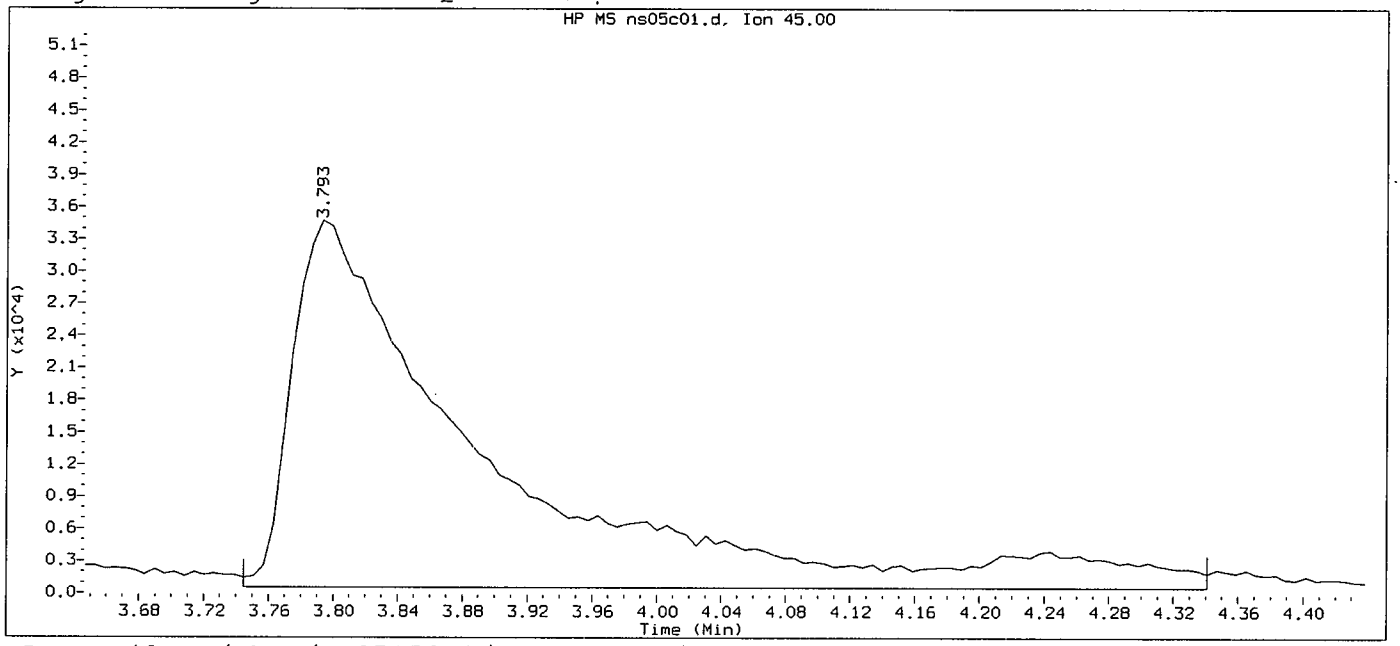
Analyst responsible for change: Digitally signed by Emily R. Styer
on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion.



Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

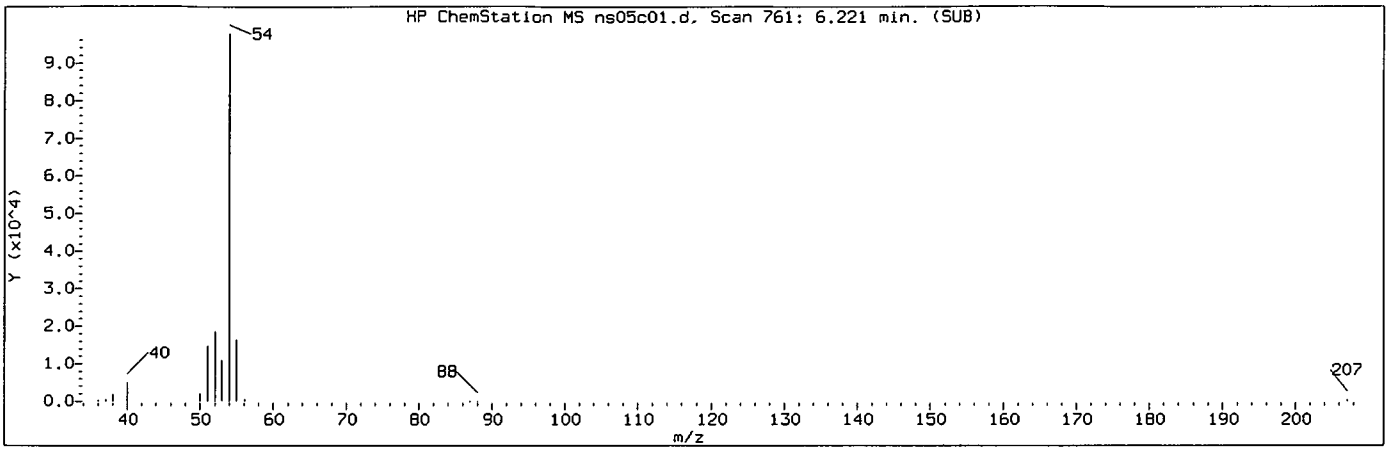
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:39 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

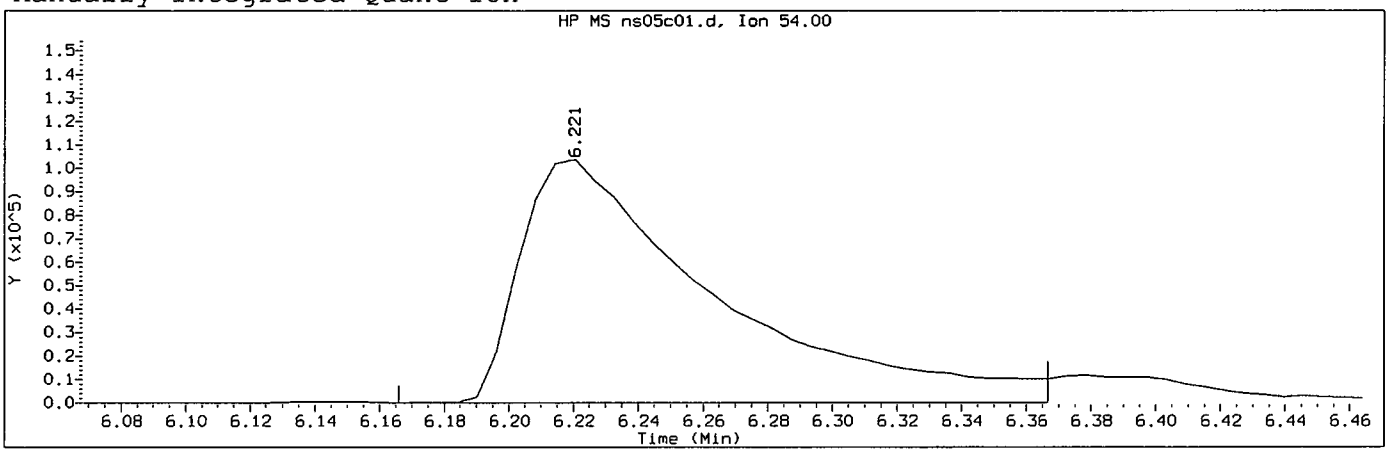
Compound Number	: 21		
Compound Name	: 2-Propanol		
Scan Number	: 362		
Retention Time (minutes)	: 3.793		
Quant Ion	: 45.00		
Area	: 282055		
On-column Amount (ng)	: 256.4373		
Integration start scan	: 353	Integration stop scan:	451
Y at integration start	: 550	Y at integration end:	525

Digitally signed by Emily R. Styer on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

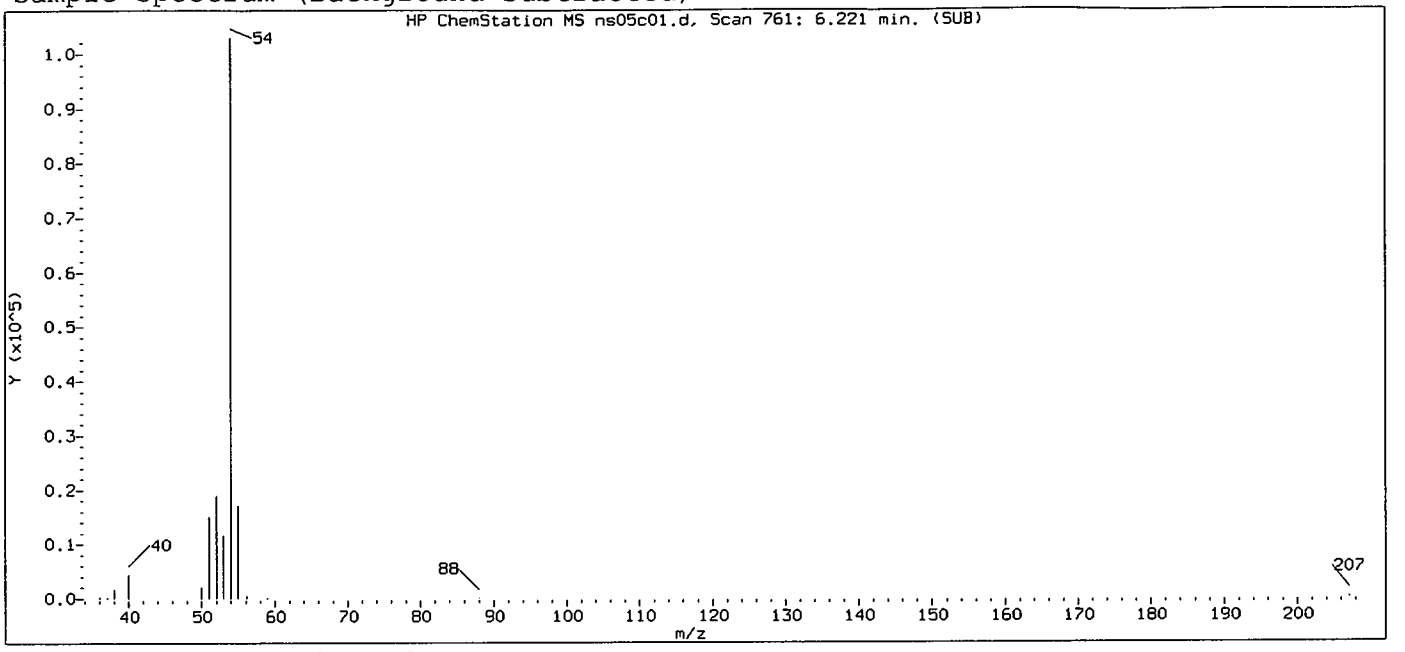
Compound Number : 45
Compound Name : Propionitrile
Scan Number : 761
Retention Time (minutes): 6.221
Quant Ion : 54.00
Area (flag) : 433244M
On-Column Amount (ng) : 224.2343
Integration start scan : 751 Integration stop scan: 784
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

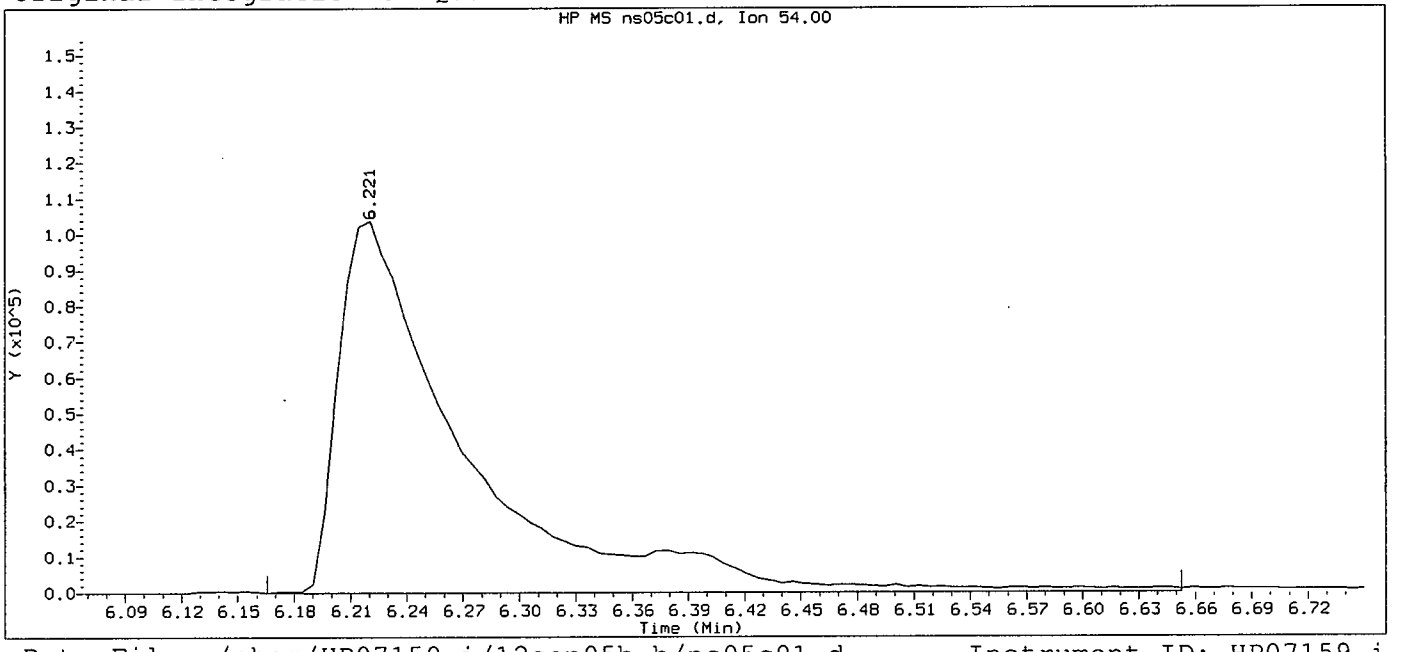
Analyst responsible for change: Digitally signed by Emily R. Styer
on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

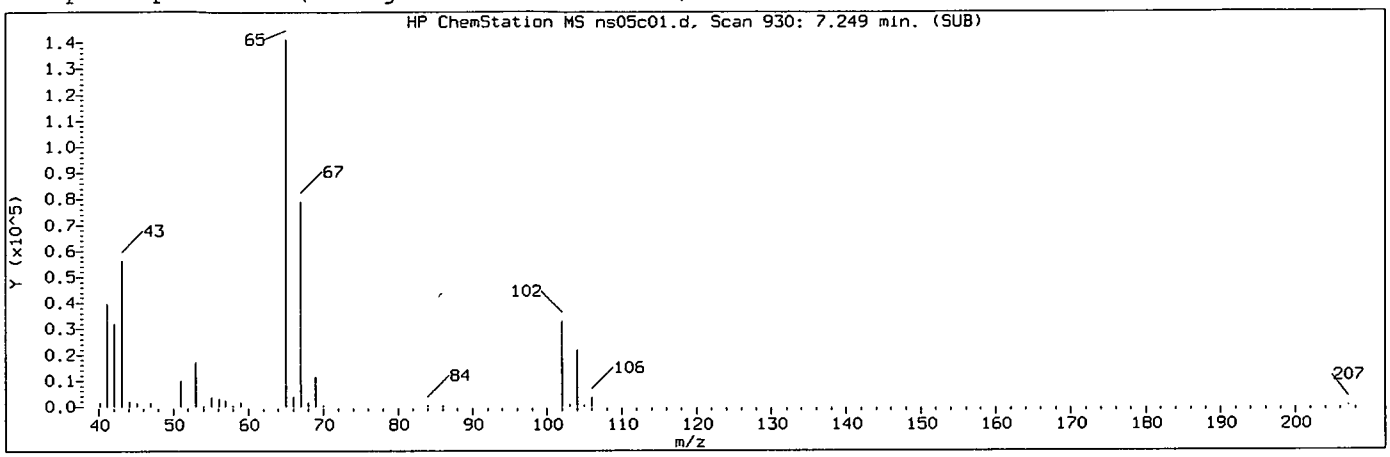
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:39 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

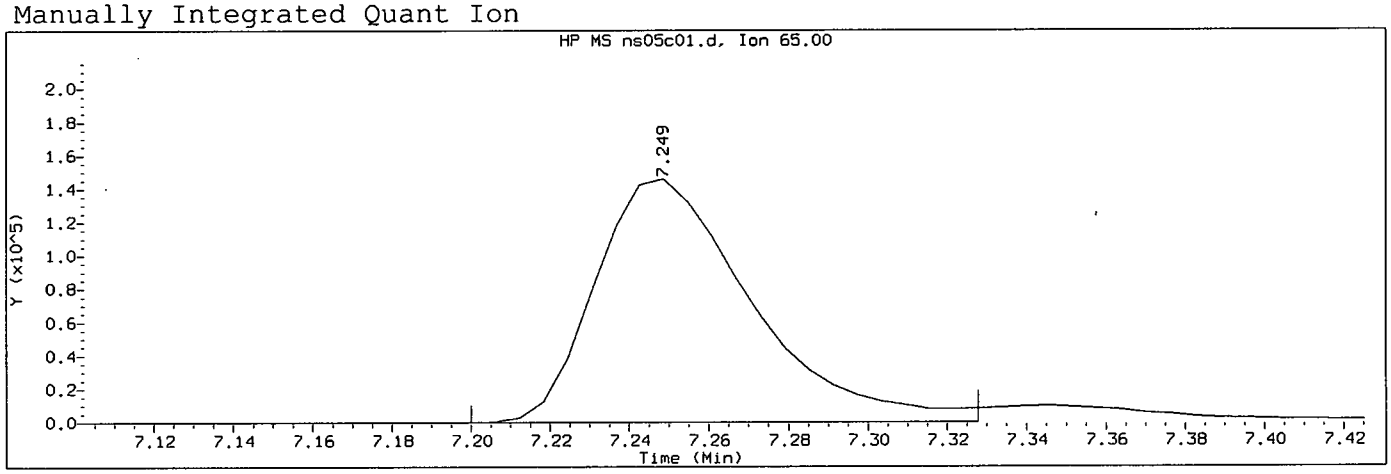
Compound Number	: 45		
Compound Name	: Propionitrile		
Scan Number	: 761		
Retention Time (minutes)	: 6.221		
Quant Ion	: 54.00		
Area	: 486795		
On-column Amount (ng)	: 251.9505		
Integration start scan	: 751	Integration stop scan:	831
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Emily R. Styer on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

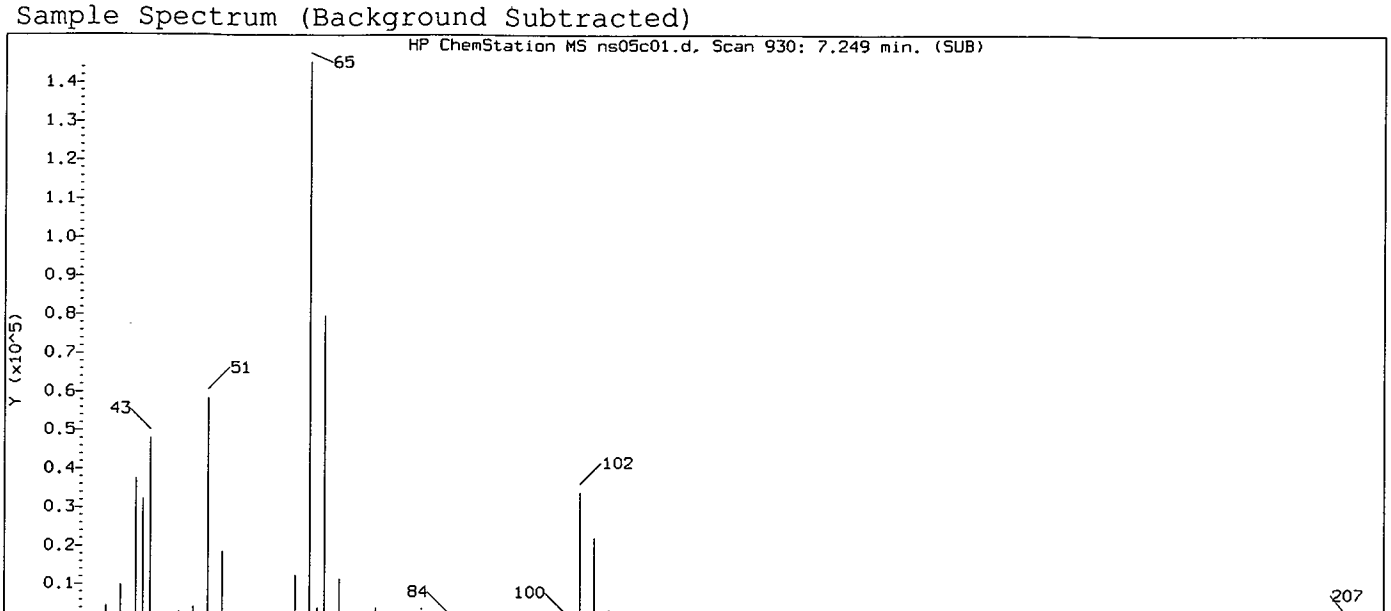
Compound Number	: 63		
Compound Name	: 1,2-Dichloroethane-d4(mz65)		
Scan Number	: 930		
Retention Time (minutes)	: 7.249		
Quant Ion	: 65.00		
Area (flag)	: 398564M		
On-Column Amount (ng)	: 50.2004		
Integration start scan	: 921	Integration stop scan:	942
Y at integration start	: 0	Y at integration end:	164

Reason for manual integration: improper integration

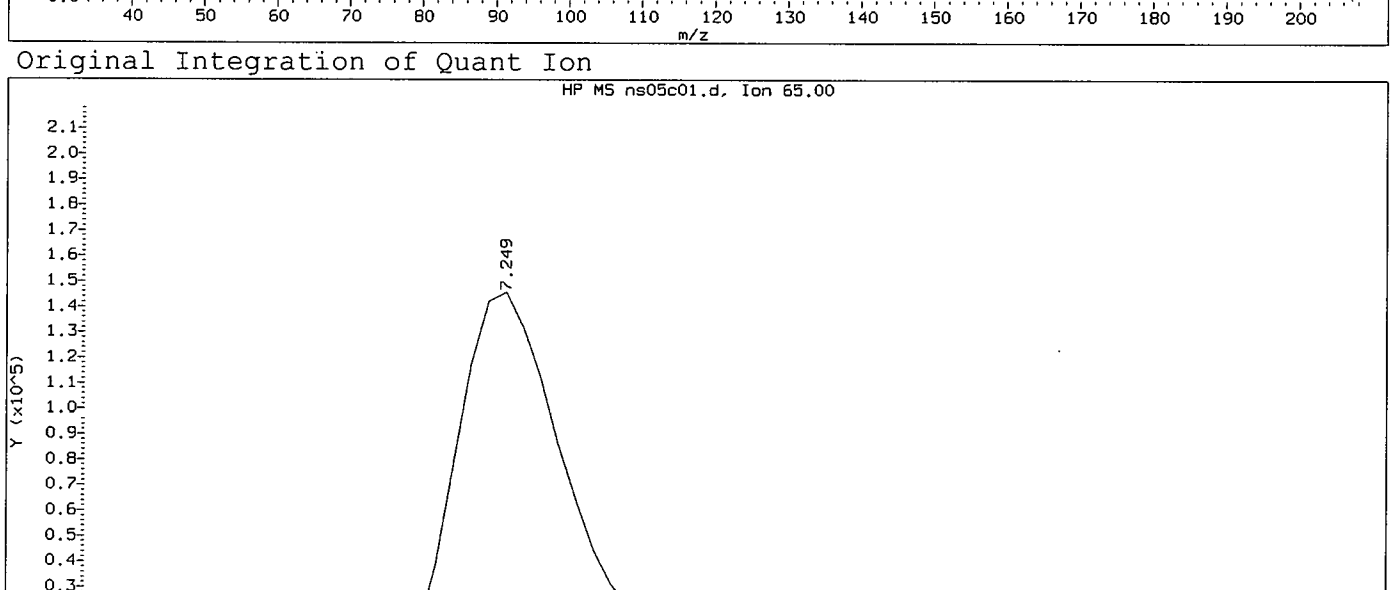
Analyst responsible for change: Digitally signed by Emily R. Styer
on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

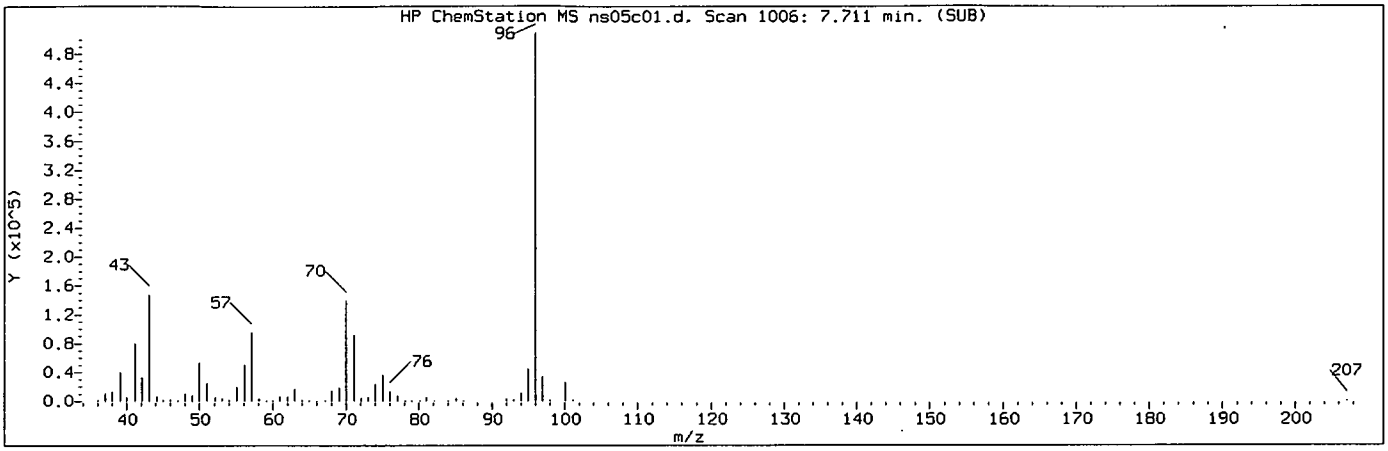
Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:39 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

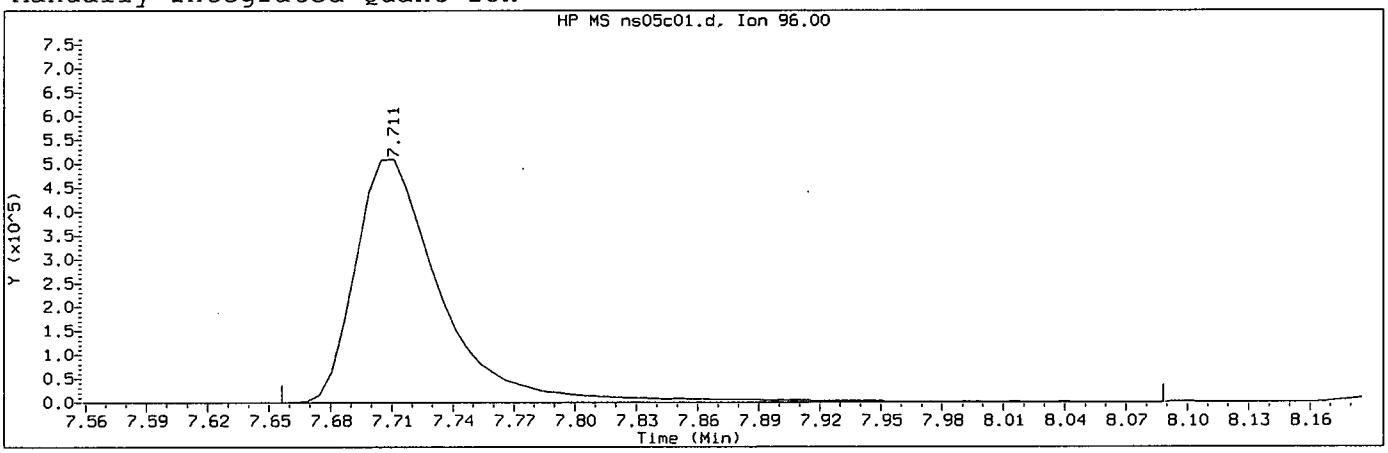
Compound Number : 63
Compound Name : 1,2-Dichloroethane-d4(mz65)
Scan Number : 930
Retention Time (minutes): 7.249
Quant Ion : 65.00
Area : 427552
On-column Amount (ng) : 52.4523
Integration start scan : 921 Integration stop scan: 962
Y at integration start : 0 Y at integration end: 322

Digitally signed by Emily R. Styer on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:41 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

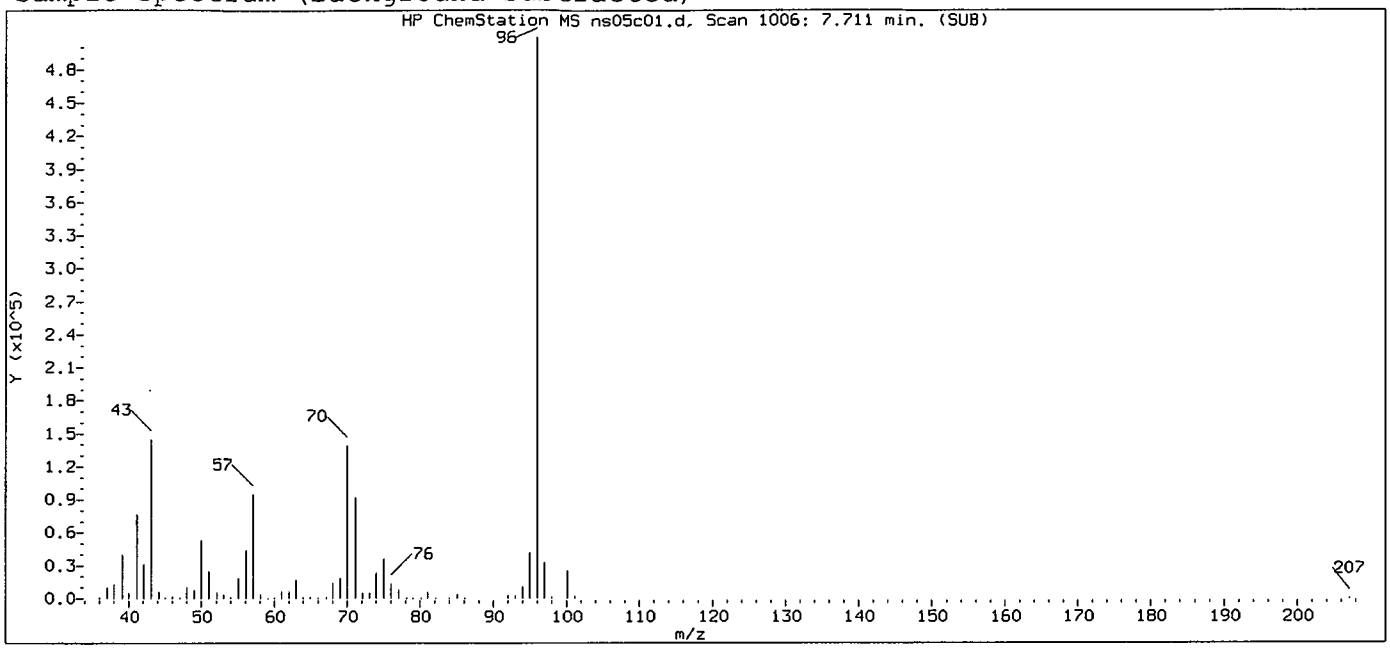
Compound Number	: 70		
Compound Name	: Fluorobenzene		
Scan Number	: 1006		
Retention Time (minutes)	: 7.711		
Quant Ion	: 96.00		
Area (flag)	: 1511702M		
On-Column Amount (ng)	: 50.0000		
Integration start scan	: 996	Integration stop scan:	1067
Y at integration start	: 0	Y at integration end:	0

Reason for manual integration: improper integration

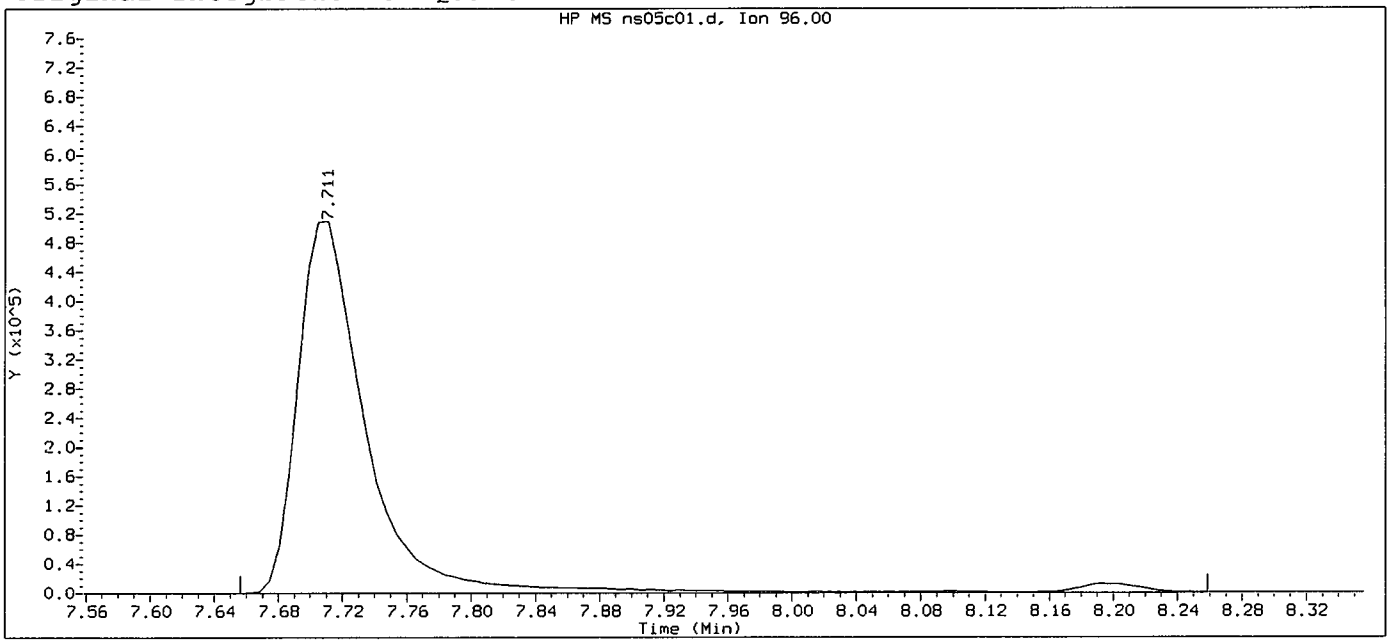
Analyst responsible for change: Digitally signed by Emily R. Styer
on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24.
Parallax ID: sej02002

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/12sep05b.b/ns05c01.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:18 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8260WI
Calibration date and time: 05-SEP-2012 12:39
Date, time and analyst ID of latest file update: 05-Sep-2012 12:39 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 70		
Compound Name	: Fluorobenzene		
Scan Number	: 1006		
Retention Time (minutes)	: 7.711		
Quant Ion	: 96.00		
Area	: 1552027		
On-column Amount (ng)	: 50.0000		
Integration start scan	: 996	Integration stop scan:	1095
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Emily R. Styer on 09/05/2012 at 12:42.
Target 3.5 esignature user ID: ers02237

Raw QC Data

VBLKN08 Lancaster Laboratories Analysis Summary for GC/MS Volatiles VBLKN08

Data file: /chem/HP07159.i/12sep05b.b/ns05b05.d
Injection date and time: **05-SEP-2012 12:41**
Data file Sample Info. Line: VBLKN08;VBLKN08;1;3;;;PLM;;;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 ers02237

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.261(-0.023)	439	65	362023 (-5)	250.00	
70) Fluorobenzene	7.716(-0.005)	1007	96	1488774 (-2)	50.00	
98) Chlorobenzene-d5	11.177(-0.011)	1576	117	1071249 (1)	50.00	
130) 1,4-Dichlorobenzene-d4	13.057(-0.029)	1885	152	606855 (-4)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.797(-0.001)	113	336073	50.500	101%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.254(0.000)	102	86586	48.645	97%		77 - 113
86) Toluene-d8	(2)	9.730(0.000)	98	1437581	47.965	96%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.181(-0.001)	95	527355	48.395	97%		78 - 113

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)			Not Detected					1	5
3) Chloromethane	(1)			Not Detected					1	5
4) Vinyl Chloride	(1)			Not Detected					1	5
5) Bromomethane	(1)			Not Detected					1	5
7) Chloroethane	(1)			Not Detected					1	5
8) Trichlorofluoromethane	(1)			Not Detected					1	5
16) 1,1-Dichloroethene	(1)			Not Detected					0.8	5
19) Acetone	(1)			Not Detected					6	20
25) Methylene Chloride	(1)			Not Detected					2	5
29) trans-1,2-Dichloroethene	(1)			Not Detected					0.8	5
30) Methyl Tertiary Butyl Ether	(1)			Not Detected					0.5	5
36) 1,1-Dichloroethane	(1)			Not Detected					1	5
40) cis-1,2-Dichloroethene	(1)			Not Detected					0.8	5
42) 2-Butanone	(1)			Not Detected					3	10
44) 2,2-Dichloropropane	(1)			Not Detected					1	5
48) Bromochloromethane	(1)			Not Detected					1	5
50) Chloroform	(1)			Not Detected					0.8	5
53) 1,1,1-Trichloroethane	(1)			Not Detected					0.8	5
58) 1,1-Dichloropropene	(1)			Not Detected					1	5
59) Carbon Tetrachloride	(1)			Not Detected					1	5
65) Benzene	(1)			Not Detected					0.5	5
66) 1,2-Dichloroethane	(1)			Not Detected					1	5
74) Trichloroethene	(1)			Not Detected					1	5
76) 1,2-Dichloropropane	(1)			Not Detected					1	5
78) Dibromomethane	(1)			Not Detected					1	5
81) Bromodichloromethane	(1)			Not Detected					1	5
84) cis-1,3-Dichloropropene	(1)			Not Detected					1	5
85) 4-Methyl-2-Pentanone	(1)			Not Detected					3	10
88) Toluene	(2)			Not Detected					0.7	5
89) trans-1,3-Dichloropropene	(2)			Not Detected					1	5
91) 1,1,2-Trichloroethane	(2)			Not Detected					0.8	5

Digitally signed by Emily R. Styer on 09/05/2012 at 13:28. Target 3.5 esignature user ID: ers02237

Data file: /chem/HP07159.i/12sep05b.b/ns05b05.d Injection date and time: **05-SEP-2012 12:41**
Data file Sample Info. Line: VBLKN08;VBLKN08;1;3;;;PLM;;; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 ers02237

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

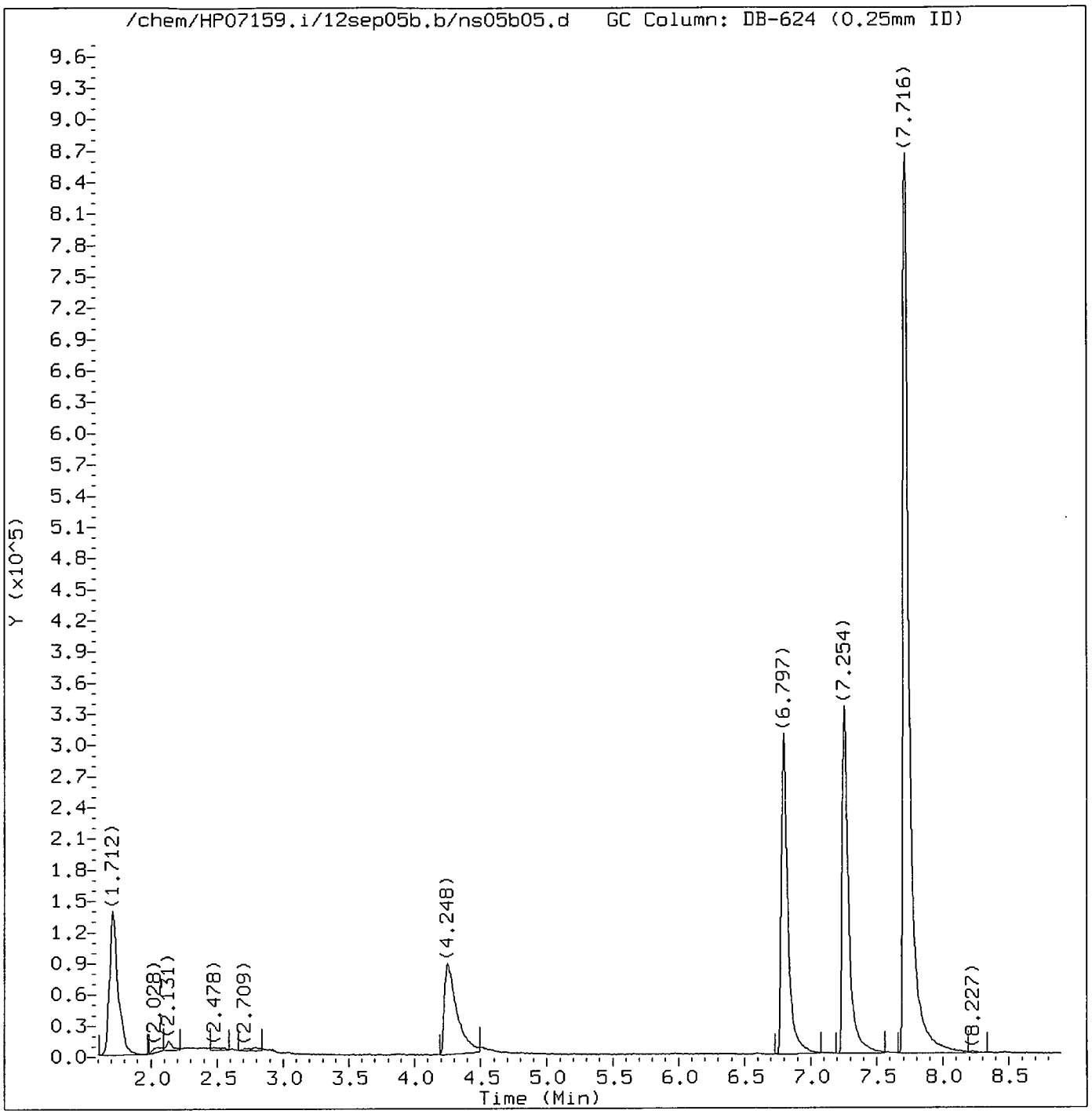
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)				Not Detected					0.8	5
94) 1,3-Dichloropropane	(2)				Not Detected					1	5
96) Dibromochloromethane	(2)				Not Detected					1	5
97) 1,2-Dibromoethane	(2)				Not Detected					1	5
100) Chlorobenzene	(2)				Not Detected					0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)				Not Detected					1	5
102) Ethylbenzene	(2)				Not Detected					0.8	5
103) m+p-Xylene	(2)				Not Detected					0.8	5
106) o-Xylene	(2)				Not Detected					0.8	5
109) Styrene	(2)				Not Detected					1	5
110) Bromoform	(2)				Not Detected					1	5
111) Isopropylbenzene	(2)				Not Detected					1	5
116) 1,1,2,2-Tetrachloroethane	(3)				Not Detected					1	5
117) Bromobenzene	(3)				Not Detected					1	5
119) 1,2,3-Trichloropropane	(3)				Not Detected					1	5
120) n-Propylbenzene	(3)				Not Detected					1	5
121) 2-Chlorotoluene	(3)				Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(3)				Not Detected					1	5
123) 4 Chlorotoluene	(3)				Not Detected					1	5
124) tert-Butylbenzene	(3)				Not Detected					1	5
126) 1,2,4-Trimethylbenzene	(3)				Not Detected					1	5
127) sec-Butylbenzene	(3)				Not Detected					1	5
128) p-Isopropyltoluene	(3)				Not Detected					1	5
129) 1,3-Dichlorobenzene	(3)				Not Detected					1	5
131) 1,4-Dichlorobenzene	(3)				Not Detected					1	5
136) n-Butylbenzene	(3)				Not Detected					1	5
137) 1,2-Dichlorobenzene	(3)				Not Detected					1	5
139) 1,2-Dibromo-3-Chloropropane	(3)				Not Detected					2	5
140) 1,2,4-Trichlorobenzene	(3)				Not Detected					1	5
141) Hexachlorobutadiene	(3)				Not Detected					2	5
142) Naphthalene	(3)				Not Detected					1	5
144) 1,2,3-Trichlorobenzene	(3)				Not Detected					1	5

Total number of targets = 63

Digitally signed by Emily R. Styer on 09/05/2012 at 13:28. Target 3.5 esignature user ID: ers02237

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

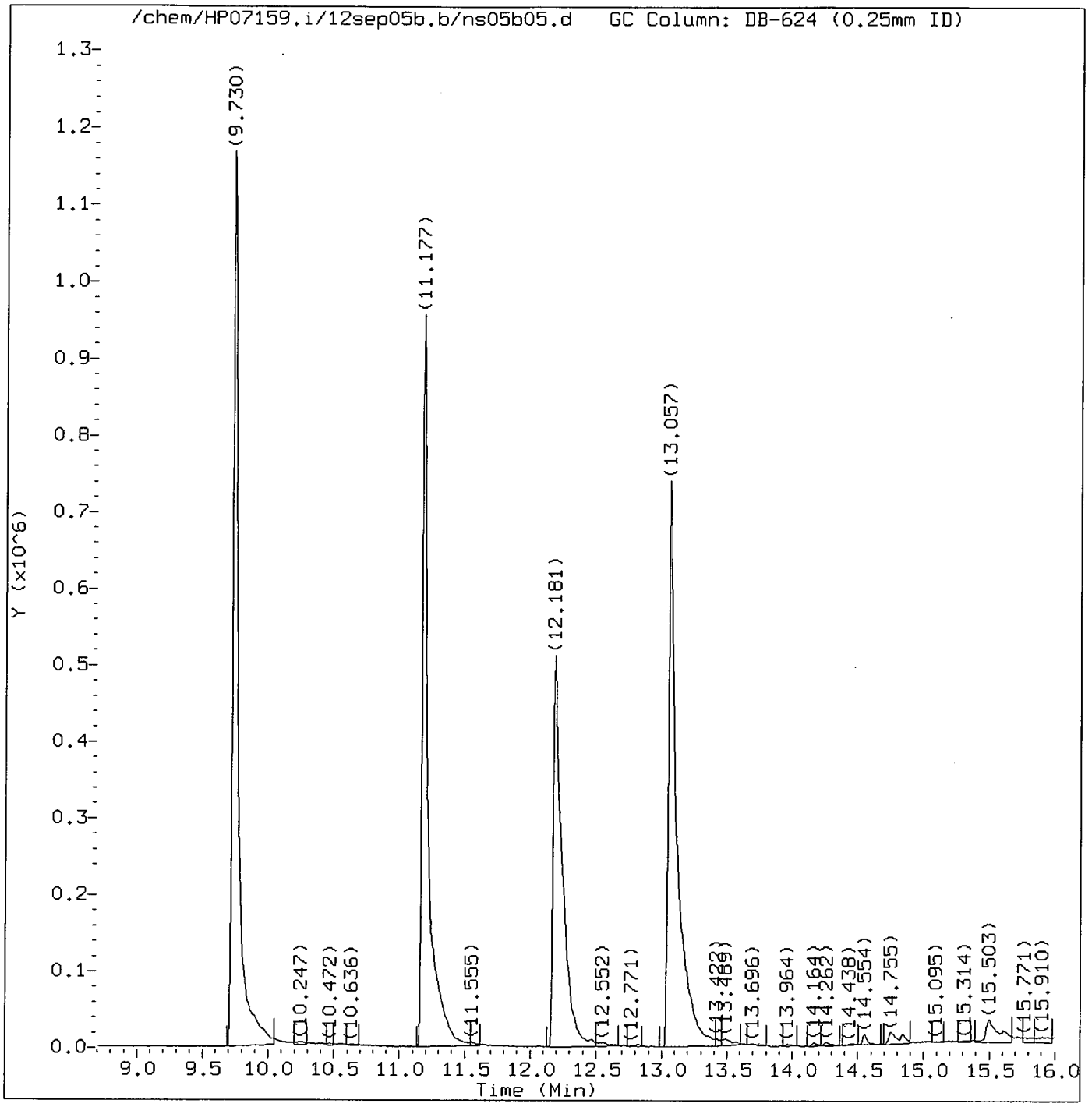
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05b05.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:41 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 ers02237

Sample Name: VBLKN08 Lab Sample ID: VBLKN08

Digitally signed by Emily R. Styer
on 09/05/2012 at 13:28.
Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05b05.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:41 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 ers02237

Sample Name: VBLKN08 Lab Sample ID: VBLKN08

Digitally signed by Emily R. Styer
on 09/05/2012 at 13:28.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05b05.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 12:41 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 ers02237

Sample Name: VBLKN08 Lab Sample ID: VBLKN08

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
26)*t-Butyl Alcohol-d10	(4)	4.261	65	362023	250.000
51)$Dibromofluoromethane	(1)	6.797	113	336073	50.500
62)$1,2-Dichloroethane-d4	(1)	7.254	102	86586	48.645
70)*Fluorobenzene	(1)	7.716	96	1488774	50.000
86)$Toluene-d8	(2)	9.730	98	1437581	47.965
98)*Chlorobenzene-d5	(2)	11.177	117	1071249	50.000
114)$4-Bromofluorobenzene	(2)	12.181	95	527355	48.395
130)*1,4-Dichlorobenzene-d4	(3)	13.057	152	606855	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Emily R. Styer
on 09/05/2012 at 13:28.
Target 3.5 esignature user ID: ers02237

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

PAT16MS

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769196

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s45.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	17	
74-87-3	Chloromethane	15	
75-01-4	Vinyl Chloride	16	
74-83-9	Bromomethane	12	
75-00-3	Chloroethane	15	
75-69-4	Trichlorofluoromethane	21	
75-35-4	1,1-Dichloroethene	25	
67-64-1	Acetone	160	
75-09-2	Methylene Chloride	22	
156-60-5	trans-1,2-Dichloroethene	23	
1634-04-4	Methyl Tertiary Butyl Ether	20	
75-34-3	1,1-Dichloroethane	23	
156-59-2	cis-1,2-Dichloroethene	22	
78-93-3	2-Butanone	160	
594-20-7	2,2-Dichloropropane	23	
74-97-5	Bromochloromethane	21	
67-66-3	Chloroform	21	
71-55-6	1,1,1-Trichloroethane	23	
563-58-6	1,1-Dichloropropene	21	
56-23-5	Carbon Tetrachloride	25	
71-43-2	Benzene	22	
107-06-2	1,2-Dichloroethane	22	
79-01-6	Trichloroethene	22	
78-87-5	1,2-Dichloropropane	21	
74-95-3	Dibromomethane	21	
75-27-4	Bromodichloromethane	22	
10061-01-5	cis-1,3-Dichloropropene	21	
108-10-1	4-Methyl-2-Pentanone	96	
108-88-3	Toluene	21	
10061-02-6	trans-1,3-Dichloropropene	20	

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT16MS

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769196

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s45.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	24	
142-28-9	1,3-Dichloropropane	20	
124-48-1	Dibromochloromethane	21	
106-93-4	1,2-Dibromoethane	21	
108-90-7	Chlorobenzene	22	
630-20-6	1,1,1,2-Tetrachloroethane	22	
100-41-4	Ethylbenzene	21	
179601-23-1	m+p-Xylene	43	
95-47-6	o-Xylene	21	
100-42-5	Styrene	20	
75-25-2	Bromoform	21	
98-82-8	Isopropylbenzene	22	
79-34-5	1,1,2,2-Tetrachloroethane	18	
108-86-1	Bromobenzene	20	
96-18-4	1,2,3-Trichloropropane	19	
103-65-1	n-Propylbenzene	20	
95-49-8	2-Chlorotoluene	20	
108-67-8	1,3,5-Trimethylbenzene	20	
106-43-4	4-Chlorotoluene	20	
98-06-6	tert-Butylbenzene	20	
95-63-6	1,2,4-Trimethylbenzene	20	
135-98-8	sec-Butylbenzene	20	
99-87-6	p-Isopropyltoluene	20	
541-73-1	1,3-Dichlorobenzene	21	
106-46-7	1,4-Dichlorobenzene	20	
104-51-8	n-Butylbenzene	20	
95-50-1	1,2-Dichlorobenzene	20	
96-12-8	1,2-Dibromo-3-Chloropropane	16	
120-82-1	1,2,4-Trichlorobenzene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT16MS

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769196

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s45.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	21	
91-20-3	Naphthalene	16	
87-61-6	1,2,3-Trichlorobenzene	19	

PAT16MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769196MS

Data file: /chem/HP07159.i/12sep05b.b/ns05s45.d Injection date and time: **05-SEP-2012 18:52**
Data file Sample Info. Line: PAT16MS;6769196MS;1;3;MS;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 19:12 Automation

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.236	(0.002)	435	65	332915	(-12)	250.00	
70) Fluorobenzene	7.709	(0.002)	1006	96	1346092	(-11)	50.00	
98) Chlorobenzene-d5	11.165	(0.002)	1574	117	933556	(-12)	50.00	
130) 1,4-Dichlorobenzene-d4	13.032	(-0.004)	1881	152	555973	(-12)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.791	(-0.001)	113	313734	52.140	104%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.247	(0.000)	102	84135	52.279	105%		77 - 113
86) Toluene-d8	(2)	9.723	(0.000)	98	1338110	51.231	102%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.156	(0.000)	95	474312	49.947	100%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
1) Dichlorodifluoromethane	(1)	1.954	(-0.000)	85	147864	16.706	16.71			1	5
3) Chloromethane	(1)	2.094	(-0.000)	50	115477	14.653	14.65			1	5
4) Vinyl Chloride	(1)	2.234	(-0.000)	62	128357	16.089	16.09			1	5
5) Bromomethane	(1)	2.550	(0.001)	94	58855	12.193	12.19			1	5
7) Chloroethane	(1)	2.654	(0.000)	64	59815	14.647	14.65			1	5
8) Trichlorofluoromethane	(1)	2.982	(0.000)	101	183931	20.738	20.74			1	5
16) 1,1-Dichloroethene	(1)	3.572	(0.000)	96	135222	24.694	24.69			0.8	5
19) Acetone	(1)	3.609	(0.000)	58	175107	155.011	155.01			6	20
25) Methylene Chloride	(1)	4.211	(0.000)	84	151691	21.754	21.75			2	5
29) trans-1,2-Dichloroethene	(1)	4.631	(-0.000)	96	146146	23.172	23.17			0.8	5
30) Methyl Tertiary Butyl Ether	(1)	4.619	(0.000)	73	445291	20.115	20.12			0.5	5
36) 1,1-Dichloroethane	(1)	5.258	(-0.000)	63	278524	23.144	23.14			1	5
40) cis-1,2-Dichloroethene	(1)	6.122	(-0.000)	96	158968	22.038	22.04			0.8	5
42) 2-Butanone	(1)	6.140	(0.000)	43	863898	162.050	162.05			3	10
44) 2,2-Dichloropropane	(1)	6.122	(0.000)	77	197659	22.716	22.72			1	5
48) Bromochloromethane	(1)	6.444	(-0.000)	128	76679	20.720	20.72			1	5
50) Chloroform	(1)	6.560	(0.000)	83	236772	20.857	20.86			0.8	5
53) 1,1,1-Trichloroethane	(1)	6.827	(-0.000)	97	217515	23.291	23.29			0.8	5
58) 1,1-Dichloropropene	(1)	7.058	(-0.000)	75	198972	20.694	20.69			1	5
59) Carbon Tetrachloride	(1)	7.058	(-0.000)	117	173652	25.371	25.37			1	5
65) Benzene	(1)	7.332	(-0.000)	78	611949	22.132	22.13			0.5	5
66) 1,2-Dichloroethane	(1)	7.350	(-0.000)	62	196759	22.465	22.47			1	5
74) Trichloroethene	(1)	8.202	(-0.000)	95	151992	22.221	22.22			1	5
76) 1,2-Dichloropropane	(1)	8.482	(-0.000)	63	163846	21.425	21.42			1	5
78) Dibromomethane	(1)	8.640	(-0.000)	93	96206	20.783	20.78			1	5
81) Bromodichloromethane	(1)	8.841	(-0.000)	83	172895	22.417	22.42			1	5
84) cis-1,3-Dichloropropene	(1)	9.419	(-0.001)	75	236989	21.259	21.26			1	5
85) 4-Methyl-2-Pentanone	(1)	9.589	(-0.000)	43	1105417	96.268	96.27			3	10
88) Toluene	(2)	9.802	(-0.000)	92	379106	21.430	21.43			0.7	5
89) trans-1,3-Dichloropropene	(2)	10.045	(-0.001)	75	206300	19.688	19.69			1	5
91) 1,1,2-Trichloroethane	(2)	10.228	(-0.000)	97	143179	20.483	20.48			0.8	5

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PAT16MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769196MS

Data file: /chem/HP07159.i/12sep05b.b/ns05s45.d Injection date and time: **05-SEP-2012 18:52**
Data file Sample Info. Line: PAT16MS;6769196MS;1;3;MS;PTL09;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 19:12 Automation

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)	10.380(-0.000)	166	163181	24.173	24.17			0.8	5
94) 1,3-Dichloropropane	(2)	10.398(-0.000)	76	247291	20.364	20.36			1	5
96) Dibromochloromethane	(2)	10.617(0.000)	129	144154	21.323	21.32			1	5
97) 1,2-Dibromoethane	(2)	10.739(-0.000)	107	149875	20.646	20.65			1	5
100) Chlorobenzene	(2)	11.195(-0.000)	112	423757	21.671	21.67			0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)	11.256(-0.000)	131	134788	22.214	22.21			1	5
102) Ethylbenzene	(2)	11.292(-0.001)	91	685111	21.159	21.16			0.8	5
103) m+p-Xylene	(2)	11.396(-0.001)	106	566432	43.087	43.09			0.8	5
106) o-Xylene	(2)	11.730(-0.000)	106	271694	21.034	21.03			0.8	5
109) Styrene	(2)	11.761(-0.001)	104	437721	20.267	20.27			1	5
110) Bromoform	(2)	11.901(-0.000)	173	99032	20.813	20.81			1	5
111) Isopropylbenzene	(2)	12.028(-0.000)	105	693509	21.713	21.71			1	5
116) 1,1,2,2-Tetrachloroethane	(3)	12.254(-0.000)	83	231971	18.176	18.18			1	5
117) Bromobenzene	(3)	12.290(-0.000)	156	182342	20.406	20.41			1	5
119) 1,2,3-Trichloropropane	(3)	12.290(0.000)	110	66453	18.611	18.61			1	5
120) n-Propylbenzene	(3)	12.351(-0.000)	91	798406	20.247	20.25			1	5
121) 2-Chlorotoluene	(3)	12.430(-0.000)	126	165260	19.702	19.70			1	5
122) 1,3,5-Trimethylbenzene	(3)	12.485(-0.000)	105	575969	19.673	19.67			1	5
123) 4-Chlorotoluene	(3)	12.515(0.000)	126	180502	19.675	19.67			1	5
124) tert-Butylbenzene	(3)	12.728(-0.000)	134	129032	20.175	20.18			1	5
126) 1,2,4-Trimethylbenzene	(3)	12.771(-0.000)	105	584939	19.705	19.70			1	5
127) sec-Butylbenzene	(3)	12.892(-0.000)	105	691169	20.048	20.05			1	5
128) p-Isopropyltoluene	(3)	12.990(-0.000)	119	598395	20.401	20.40			1	5
129) 1,3-Dichlorobenzene	(3)	12.996(-0.000)	146	309520	20.534	20.53			1	5
131) 1,4-Dichlorobenzene	(3)	13.051(0.000)	146	380946	19.966	19.97			1	5
136) n-Butylbenzene	(3)	13.294(-0.000)	92	306177	19.791	19.79			1	5
137) 1,2-Dichlorobenzene	(3)	13.330(-0.000)	146	338528	19.569	19.57			1	5
139) 1,2-Dibromo-3-Chloropropane	(3)	13.884(-0.000)	75	46715	15.990	15.99			2	5
140) 1,2,4-Trichlorobenzene	(3)	14.444(-0.001)	180	229164	19.357	19.36			1	5
141) Hexachlorobutadiene	(3)	14.511(0.000)	225	86402	21.018	21.02			2	5
142) Naphthalene	(3)	14.620(-0.001)	128	724078	16.365	16.37			1	5
144) 1,2,3-Trichlorobenzene	(3)	14.766(-0.000)	180	230122	19.367	19.37			1	5

Total number of targets = 63

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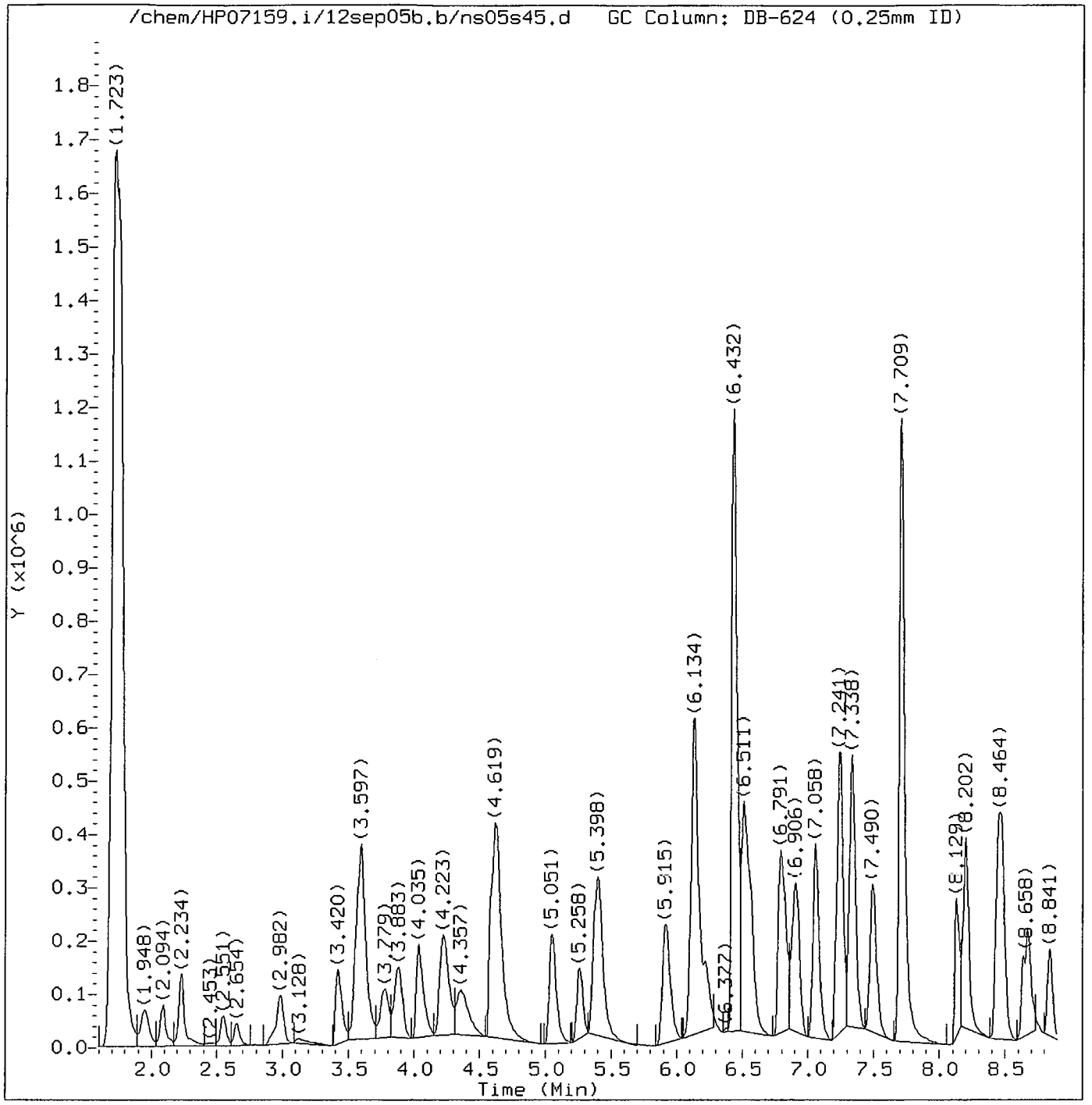
Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s45.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:52 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:12 Automation

Sample Name: PAT16MS Lab Sample ID: 6769196MS

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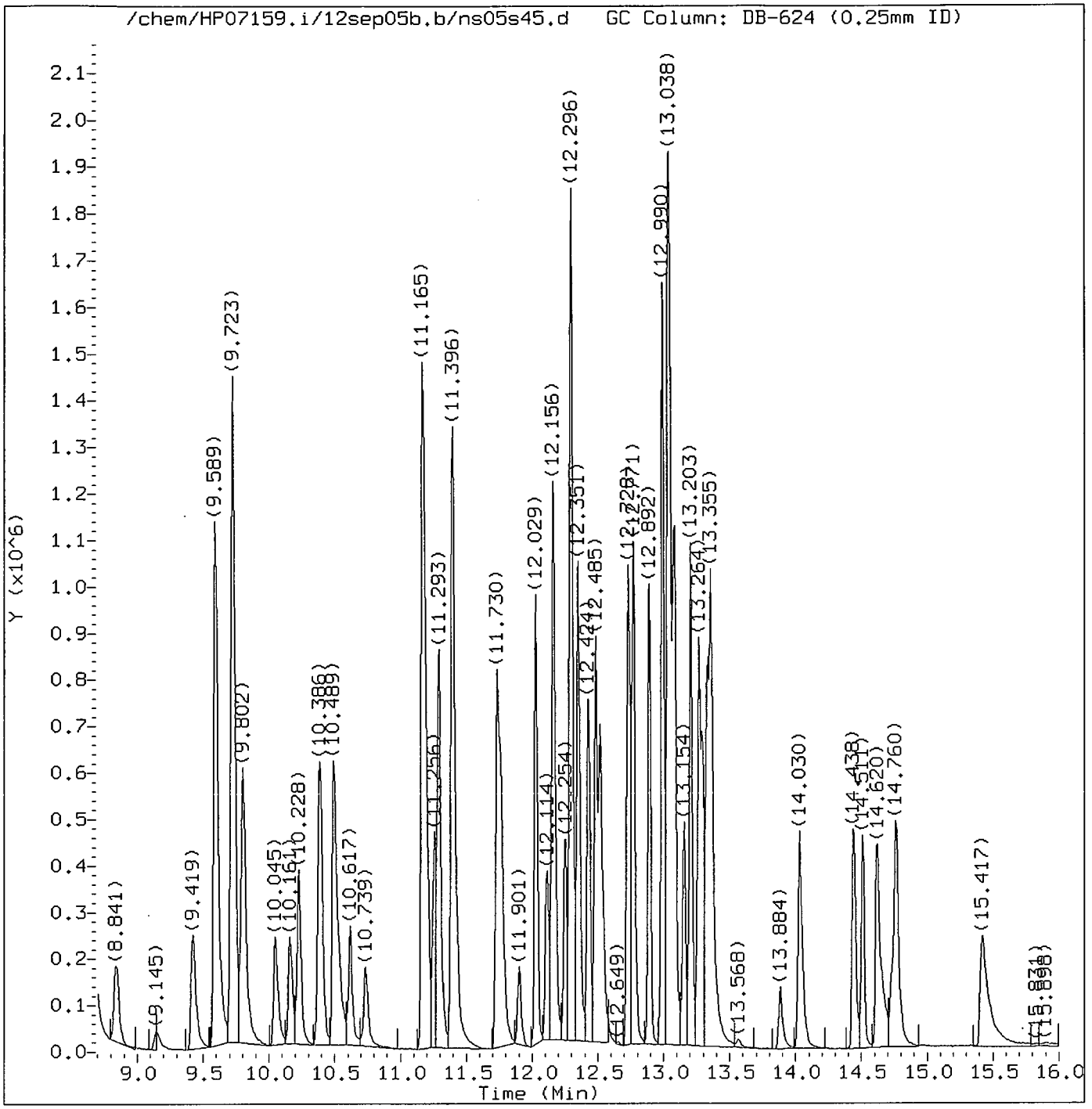
on 09/05/2012 at 20:43.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s45.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:52 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:12 Automation

Sample Name: PAT16MS Lab Sample ID: 6769196MS

Digitally signed by Sarah A. Guill
on 09/05/2012 at 20:43.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s45.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:52 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:12 Automation

Sample Name: PAT16MS Lab Sample ID: 6769196MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.954	85	147864	16.706
3) Chloromethane	(1)	2.094	50	115477	14.653
4) Vinyl Chloride	(1)	2.234	62	128357	16.089
5) Bromomethane	(1)	2.551	94	58855	12.193
7) Chloroethane	(1)	2.654	64	59815	14.647
8) Trichlorofluoromethane	(1)	2.982	101	183931	20.738
16) 1,1-Dichloroethene	(1)	3.573	96	135222	24.694
19) Acetone	(1)	3.609	58	175107	155.011
25) Methylene Chloride	(1)	4.211	84	151691	21.754
26)*t-Butyl Alcohol-d10	(4)	4.236	65	332915	250.000
30) Methyl Tertiary Butyl Ether	(1)	4.619	73	445291	20.115
29) trans-1,2-Dichloroethene	(1)	4.631	96	146146	23.172
36) 1,1-Dichloroethane	(1)	5.258	63	278524	23.144
40) cis-1,2-Dichloroethene	(1)	6.122	96	158968	22.038
44) 2,2-Dichloropropane	(1)	6.122	77	197659	22.716
42) 2-Butanone	(1)	6.140	43	863898	162.050
48) Bromochloromethane	(1)	6.444	128	76679	20.720
50) Chloroform	(1)	6.560	83	236772	20.857
51)$Dibromofluoromethane	(1)	6.791	113	313734	52.140
53) 1,1,1-Trichloroethane	(1)	6.827	97	217515	23.291
58) 1,1-Dichloropropene	(1)	7.058	75	198972	20.694
59) Carbon Tetrachloride	(1)	7.058	117	173652	25.371
62)$1,2-Dichloroethane-d4	(1)	7.247	102	84135	52.279
65) Benzene	(1)	7.332	78	611949	22.132
66) 1,2-Dichloroethane	(1)	7.350	62	196759	22.465
70)*Fluorobenzene	(1)	7.709	96	1346092	50.000
74) Trichloroethene	(1)	8.202	95	151992	22.221
76) 1,2-Dichloropropane	(1)	8.482	63	163846	21.425
78) Dibromomethane	(1)	8.640	93	96206	20.783
81) Bromodichloromethane	(1)	8.841	83	172895	22.417
84) cis-1,3-Dichloropropene	(1)	9.419	75	236989	21.259
85) 4-Methyl-2-Pentanone	(1)	9.589	43	1105417	96.268
86)$Toluene-d8	(2)	9.723	98	1338110	51.231
88) Toluene	(2)	9.802	92	379106	21.430
89) trans-1,3-Dichloropropene	(2)	10.045	75	206300	19.688
91) 1,1,2-Trichloroethane	(2)	10.228	97	143179	20.483
93) Tetrachloroethene	(2)	10.380	166	163181	24.173
94) 1,3-Dichloropropane	(2)	10.398	76	247291	20.364

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 09/05/2012 at 20:43.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s45.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 18:52 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:12 Automation

Sample Name: PAT16MS Lab Sample ID: 6769196MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
96) Dibromochloromethane	(2)	10.617	129	144154	21.323
97) 1,2-Dibromoethane	(2)	10.739	107	149875	20.646
98) *Chlorobenzene-d5	(2)	11.165	117	933556	50.000
100) Chlorobenzene	(2)	11.195	112	423757	21.671
101) 1,1,1,2-Tetrachloroethane	(2)	11.256	131	134788	22.214
102) Ethylbenzene	(2)	11.293	91	685111	21.159
103) m+p-Xylene	(2)	11.396	106	566432	43.087
106) o-Xylene	(2)	11.730	106	271694	21.034
109) Styrene	(2)	11.761	104	437721	20.267
110) Bromoform	(2)	11.901	173	99032	20.813
111) Isopropylbenzene	(2)	12.029	105	693509	21.713
114) $4-Bromofluorobenzene	(2)	12.156	95	474312	49.947
116) 1,1,2,2-Tetrachloroethane	(3)	12.254	83	231971	18.176
119) 1,2,3-Trichloropropane	(3)	12.290	110	66453	18.611
117) Bromobenzene	(3)	12.290	156	182342	20.406
120) n-Propylbenzene	(3)	12.351	91	798406	20.247
121) 2-Chlorotoluene	(3)	12.430	126	165260	19.702
122) 1,3,5-Trimethylbenzene	(3)	12.485	105	575969	19.673
123) 4-Chlorotoluene	(3)	12.515	126	180502	19.675
124) tert-Butylbenzene	(3)	12.728	134	129032	20.175
126) 1,2,4-Trimethylbenzene	(3)	12.771	105	584939	19.705
127) sec-Butylbenzene	(3)	12.892	105	691169	20.048
128) p-Isopropyltoluene	(3)	12.990	119	598395	20.401
129) 1,3-Dichlorobenzene	(3)	12.996	146	309520	20.534
130) *1,4-Dichlorobenzene-d4	(3)	13.032	152	555973	50.000
131) 1,4-Dichlorobenzene	(3)	13.051	146	380946	19.966
136) n-Butylbenzene	(3)	13.294	92	306177	19.791
137) 1,2-Dichlorobenzene	(3)	13.330	146	338528	19.569
139) 1,2-Dibromo-3-Chloropropane	(3)	13.884	75	46715	15.990
140) 1,2,4-Trichlorobenzene	(3)	14.444	180	229164	19.357
141) Hexachlorobutadiene	(3)	14.511	225	86402	21.018
142) Naphthalene	(3)	14.620	128	724078	16.365
144) 1,2,3-Trichlorobenzene	(3)	14.766	180	230122	19.367

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 09/05/2012 at 20:43.
Target 3.5 esignature user ID: sag03174

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT16MSD

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769197

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s46.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	20	
74-87-3	Chloromethane	18	
75-01-4	Vinyl Chloride	19	
74-83-9	Bromomethane	15	
75-00-3	Chloroethane	18	
75-69-4	Trichlorofluoromethane	24	
75-35-4	1,1-Dichloroethene	24	
67-64-1	Acetone	160	
75-09-2	Methylene Chloride	21	
156-60-5	trans-1,2-Dichloroethene	23	
1634-04-4	Methyl Tertiary Butyl Ether	20	
75-34-3	1,1-Dichloroethane	23	
156-59-2	cis-1,2-Dichloroethene	22	
78-93-3	2-Butanone	160	
594-20-7	2,2-Dichloropropane	23	
74-97-5	Bromochloromethane	21	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	23	
563-58-6	1,1-Dichloropropene	21	
56-23-5	Carbon Tetrachloride	25	
71-43-2	Benzene	21	
107-06-2	1,2-Dichloroethane	22	
79-01-6	Trichloroethene	22	
78-87-5	1,2-Dichloropropane	21	
74-95-3	Dibromomethane	20	
75-27-4	Bromodichloromethane	22	
10061-01-5	cis-1,3-Dichloropropene	21	
108-10-1	4-Methyl-2-Pentanone	95	
108-88-3	Toluene	21	
10061-02-6	trans-1,3-Dichloropropene	19	

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT16MSD

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769197

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s46.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
79-00-5	1,1,2-Trichloroethane		20	
127-18-4	Tetrachloroethene		24	
142-28-9	1,3-Dichloropropane		20	
124-48-1	Dibromochloromethane		21	
106-93-4	1,2-Dibromoethane		20	
108-90-7	Chlorobenzene		22	
630-20-6	1,1,1,2-Tetrachloroethane		22	
100-41-4	Ethylbenzene		21	
179601-23-1	m+p-Xylene		43	
95-47-6	o-Xylene		21	
100-42-5	Styrene		20	
75-25-2	Bromoform		20	
98-82-8	Isopropylbenzene		22	
79-34-5	1,1,2,2-Tetrachloroethane		18	
108-86-1	Bromobenzene		20	
96-18-4	1,2,3-Trichloropropane		18	
103-65-1	n-Propylbenzene		20	
95-49-8	2-Chlorotoluene		19	
108-67-8	1,3,5-Trimethylbenzene		19	
106-43-4	4-Chlorotoluene		19	
98-06-6	tert-Butylbenzene		20	
95-63-6	1,2,4-Trimethylbenzene		19	
135-98-8	sec-Butylbenzene		20	
99-87-6	p-Isopropyltoluene		20	
541-73-1	1,3-Dichlorobenzene		20	
106-46-7	1,4-Dichlorobenzene		20	
104-51-8	n-Butylbenzene		20	
95-50-1	1,2-Dichlorobenzene		19	
96-12-8	1,2-Dibromo-3-Chloropropane		16	
120-82-1	1,2,4-Trichlorobenzene		19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PAT16MSD

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 6769197

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s46.d

Level: (low/med) LOW Date Received: 08/28/12

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	21	
91-20-3	Naphthalene	16	
87-61-6	1,2,3-Trichlorobenzene	19	

PAT16MSD

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769197MSD

Data file: /chem/HP07159.i/12sep05b.b/ns05s46.d
Injection date and time: **05-SEP-2012 19:16**
Data file Sample Info. Line: PAT16MSD;6769197MSD;1;3;MSD;;PLM;;ns05b05
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 19:36 Automation

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.241	(-0.003)	436	65	331321	(-13)	250.00	
70) Fluorobenzene	7.708	(0.003)	1006	96	1374043	(-9)	50.00	
98) Chlorobenzene-d5	11.170	(-0.003)	1575	117	946971	(-11)	50.00	
130) 1,4-Dichlorobenzene-d4	13.037	(-0.009)	1882	152	566539	(-10)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.790	(-0.001)	113	316506	51.531	103%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.246	(0.000)	102	85827	52.245	104%		77 - 113
86) Toluene-d8	(2)	9.722	(0.001)	98	1350080	50.957	102%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.161	(0.000)	95	482472	50.087	100%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
1) Dichlorodifluoromethane	(1)	1.947	(0.000)	85	179565	19.875	19.88			1	5
3) Chloromethane	(1)	2.087	(0.000)	50	144501	17.963	17.96			1	5
4) Vinyl Chloride	(1)	2.233	(-0.000)	62	157624	19.356	19.36			1	5
5) Bromomethane	(1)	2.549	(0.001)	94	74206	15.060	15.06			1	5
7) Chloroethane	(1)	2.647	(0.001)	64	74517	17.876	17.88			1	5
8) Trichlorofluoromethane	(1)	2.981	(0.000)	101	219618	24.258	24.26			1	5
16) 1,1-Dichloroethene	(1)	3.571	(0.000)	96	136791	24.473	24.47			0.8	5
19) Acetone	(1)	3.602	(0.001)	58	183540	159.171	159.17			6	20
25) Methylene Chloride	(1)	4.210	(0.000)	84	151341	21.262	21.26			2	5
29) trans-1,2-Dichloroethene	(1)	4.624	(0.000)	96	145397	22.585	22.58			0.8	5
30) Methyl Tertiary Butyl Ether	(1)	4.624	(0.000)	73	449691	19.901	19.90			0.5	5
36) 1,1-Dichloroethane	(1)	5.256	(-0.000)	63	281087	22.882	22.88			1	5
40) cis-1,2-Dichloroethene	(1)	6.120	(-0.000)	96	160150	21.750	21.75			0.8	5
42) 2-Butanone	(1)	6.139	(0.000)	43	866289	159.193	159.19			3	10
44) 2,2-Dichloropropane	(1)	6.120	(0.000)	77	200194	22.539	22.54			1	5
48) Bromochloromethane	(1)	6.443	(-0.000)	128	78711	20.836	20.84			1	5
50) Chloroform	(1)	6.564	(-0.000)	83	237169	20.467	20.47			0.8	5
53) 1,1,1-Trichloroethane	(1)	6.826	(-0.000)	97	216643	22.726	22.73			0.8	5
58) 1,1-Dichloropropene	(1)	7.057	(-0.000)	75	201401	20.521	20.52			1	5
59) Carbon Tetrachloride	(1)	7.057	(-0.000)	117	175463	25.114	25.11			1	5
65) Benzene	(1)	7.331	(-0.000)	78	600029	21.259	21.26			0.5	5
66) 1,2-Dichloroethane	(1)	7.349	(-0.000)	62	194204	21.723	21.72			1	5
74) Trichloroethene	(1)	8.201	(-0.000)	95	154561	22.137	22.14			1	5
76) 1,2-Dichloropropane	(1)	8.481	(-0.000)	63	163624	20.960	20.96			1	5
78) Dibromomethane	(1)	8.639	(-0.000)	93	96659	20.456	20.46			1	5
81) Bromodichloromethane	(1)	8.840	(-0.000)	83	173749	22.070	22.07			1	5
84) cis-1,3-Dichloropropene	(1)	9.418	(-0.001)	75	237832	20.900	20.90			1	5
85) 4-Methyl-2-Pentanone	(1)	9.588	(-0.000)	43	1115500	95.170	95.17			3	10
88) Toluene	(2)	9.801	(-0.000)	92	382436	21.312	21.31			0.7	5
89) trans-1,3-Dichloropropene	(2)	10.050	(-0.001)	75	203418	19.138	19.14			1	5
91) 1,1,2-Trichloroethane	(2)	10.227	(-0.000)	97	140663	19.838	19.84			0.8	5

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PAT16MSD

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6769197MSD

Data file: /chem/HP07159.i/12sep05b.b/ns05s46.d Injection date and time: **05-SEP-2012 19:16**
Data file Sample Info. Line: PAT16MSD;6769197MSD;1;3;MSD;;PLM;;ns05b05 Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 19:36 Automation

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)	10.379(-0.000)	166	167072	24.399	24.40			0.8	5
94) 1,3-Dichloropropane	(2)	10.397(-0.000)	76	251503	20.417	20.42			1	5
96) Dibromochloromethane	(2)	10.622(-0.000)	129	144846	21.124	21.12			1	5
97) 1,2-Dibromoethane	(2)	10.738(-0.000)	107	149984	20.368	20.37			1	5
100) Chlorobenzene	(2)	11.194(0.000)	112	429873	21.672	21.67			0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)	11.261(0.000)	131	135685	22.046	22.05			1	5
102) Ethylbenzene	(2)	11.291(-0.000)	91	683836	20.820	20.82			0.8	5
103) m+p-Xylene	(2)	11.395(-0.000)	106	571646	42.868	42.87			0.8	5
106) o-Xylene	(2)	11.735(-0.000)	106	272598	20.805	20.81			0.8	5
109) Styrene	(2)	11.760(-0.001)	104	435891	19.896	19.90			1	5
110) Bromoform	(2)	11.900(0.000)	173	97933	20.337	20.34			1	5
111) Isopropylbenzene	(2)	12.027(0.000)	105	699025	21.575	21.58			1	5
116) 1,1,2,2-Tetrachloroethane	(3)	12.252(0.000)	83	233343	17.943	17.94			1	5
117) Bromobenzene	(3)	12.289(0.000)	156	182330	20.024	20.02			1	5
119) 1,2,3-Trichloropropane	(3)	12.295(0.000)	110	66749	18.345	18.35			1	5
120) n-Propylbenzene	(3)	12.350(0.000)	91	800197	19.914	19.91			1	5
121) 2-Chlorotoluene	(3)	12.429(0.000)	126	165868	19.405	19.41			1	5
122) 1,3,5-Trimethylbenzene	(3)	12.484(0.000)	105	580300	19.452	19.45			1	5
123) 4-Chlorotoluene	(3)	12.520(-0.000)	126	181452	19.409	19.41			1	5
124) tert-Butylbenzene	(3)	12.727(0.000)	134	129772	19.913	19.91			1	5
126) 1,2,4-Trimethylbenzene	(3)	12.770(0.000)	105	586996	19.405	19.41			1	5
127) sec-Butylbenzene	(3)	12.891(0.000)	105	700911	19.952	19.95			1	5
128) p-Isopropyltoluene	(3)	12.995(-0.000)	119	607037	20.310	20.31			1	5
129) 1,3-Dichlorobenzene	(3)	12.995(-0.000)	146	311017	20.249	20.25			1	5
131) 1,4-Dichlorobenzene	(3)	13.056(0.000)	146	381777	19.637	19.64			1	5
136) n-Butylbenzene	(3)	13.293(0.000)	92	309113	19.609	19.61			1	5
137) 1,2-Dichlorobenzene	(3)	13.329(0.000)	146	338952	19.228	19.23			1	5
139) 1,2-Dibromo-3-Chloropropane	(3)	13.883(-0.000)	75	47566	15.977	15.98			2	5
140) 1,2,4-Trichlorobenzene	(3)	14.442(-0.000)	180	229826	19.051	19.05			1	5
141) Hexachlorobutadiene	(3)	14.516(0.000)	225	87326	20.847	20.85			2	5
142) Naphthalene	(3)	14.619(-0.000)	128	741570	16.448	16.45			1	5
144) 1,2,3-Trichlorobenzene	(3)	14.765(-0.000)	180	230135	19.007	19.01			1	5

Total number of targets = 63

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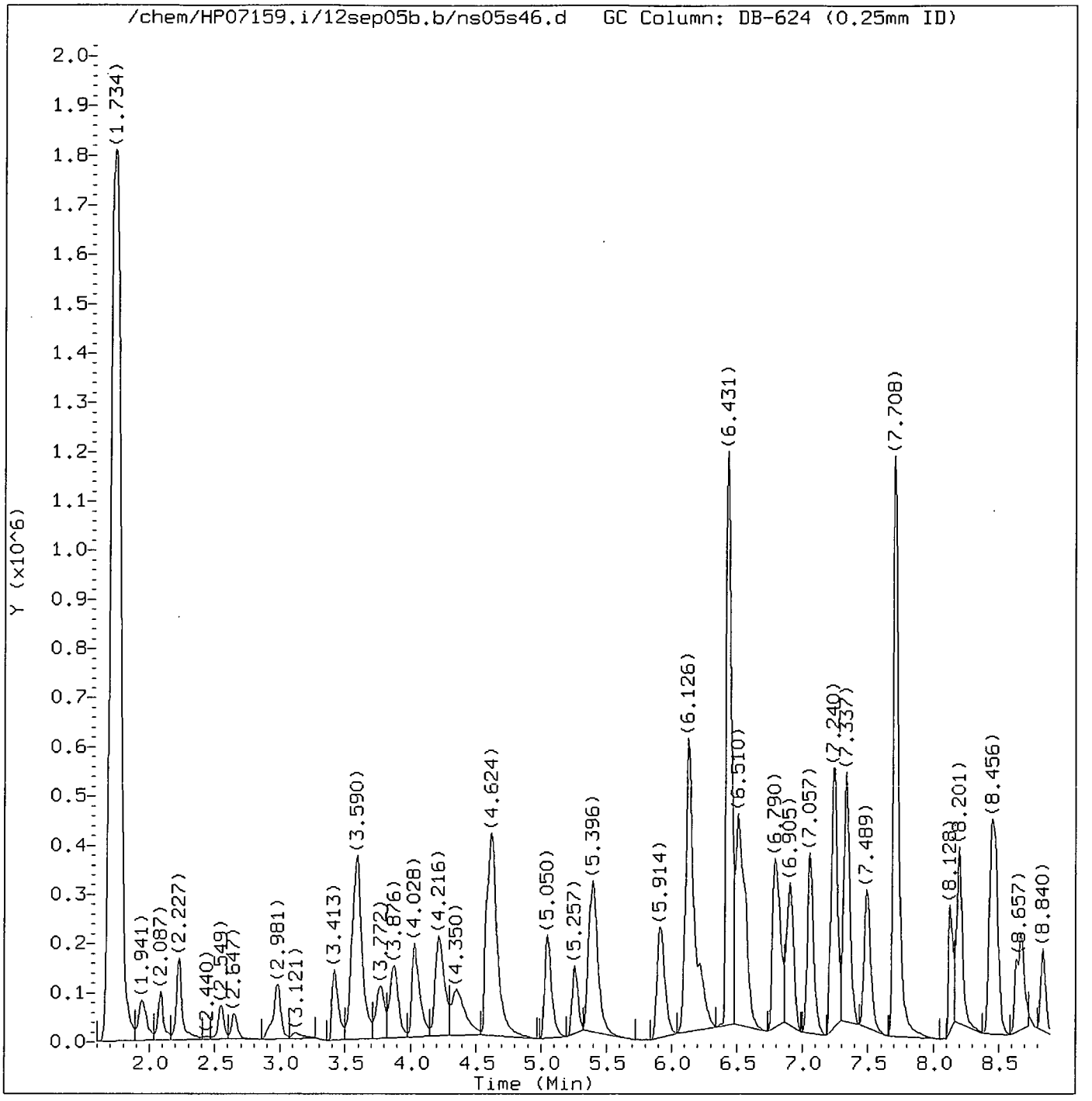
Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

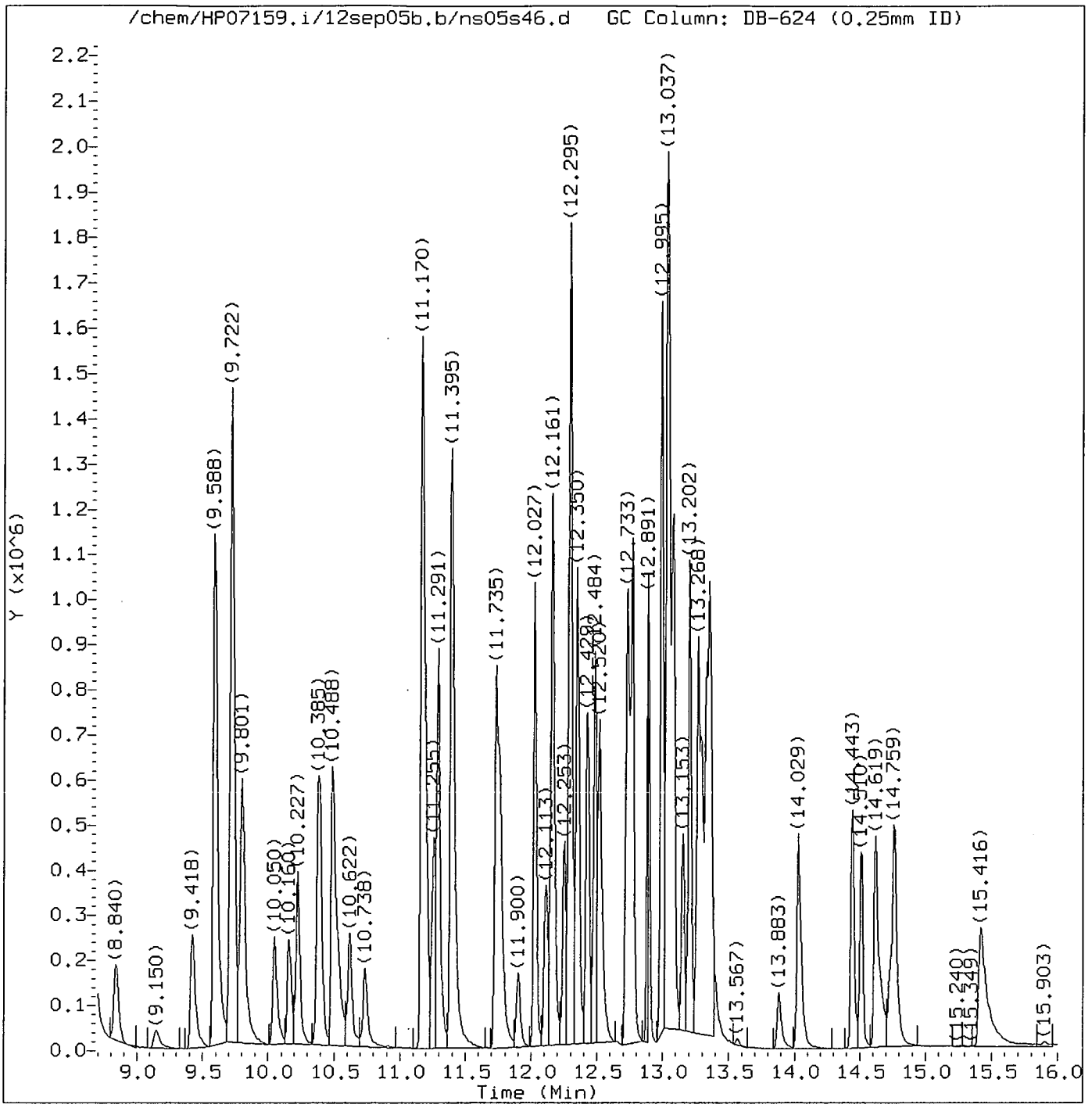
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s46.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:16 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:36 Automation

Sample Name: PAT16MSD Lab Sample ID: 6769197MSD

Digitally signed by Sarah A. Guill
on 09/05/2012 at 20:43.
Target 3.5 esignature user ID: sag03174



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s46.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:16 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:36 Automation

Sample Name: PAT16MSD Lab Sample ID: 6769197MSD

Digitally signed by Sarah A. Guill
on 09/05/2012 at 20:43.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s46.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:16 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:36 Automation

Sample Name: PAT16MSD Lab Sample ID: 6769197MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.947	85	179565	19.875
3) Chloromethane	(1)	2.087	50	144501	17.963
4) Vinyl Chloride	(1)	2.233	62	157624	19.356
5) Bromomethane	(1)	2.549	94	74206	15.060
7) Chloroethane	(1)	2.647	64	74517	17.876
8) Trichlorofluoromethane	(1)	2.981	101	219618	24.258
16) 1,1-Dichloroethene	(1)	3.571	96	136791	24.473
19) Acetone	(1)	3.602	58	183540	159.171
25) Methylene Chloride	(1)	4.210	84	151341	21.262
26)*t-Butyl Alcohol-d10	(4)	4.241	65	331321	250.000
29) trans-1,2-Dichloroethene	(1)	4.624	96	145397	22.585
30) Methyl Tertiary Butyl Ether	(1)	4.624	73	449691	19.901
36) 1,1-Dichloroethane	(1)	5.257	63	281087	22.882
40) cis-1,2-Dichloroethene	(1)	6.120	96	160150	21.750
44) 2,2-Dichloropropane	(1)	6.120	77	200194	22.539
42) 2-Butanone	(1)	6.139	43	866289	159.193
48) Bromochloromethane	(1)	6.443	128	78711	20.836
50) Chloroform	(1)	6.564	83	237169	20.467
51)$Dibromofluoromethane	(1)	6.790	113	316506	51.531
53) 1,1,1-Trichloroethane	(1)	6.826	97	216643	22.726
58) 1,1-Dichloropropene	(1)	7.057	75	201401	20.521
59) Carbon Tetrachloride	(1)	7.057	117	175463	25.114
62)$1,2-Dichloroethane-d4	(1)	7.246	102	85827	52.245
65) Benzene	(1)	7.331	78	600029	21.259
66) 1,2-Dichloroethane	(1)	7.349	62	194204	21.723
70)*Fluorobenzene	(1)	7.708	96	1374043	50.000
74) Trichloroethene	(1)	8.201	95	154561	22.137
76) 1,2-Dichloropropane	(1)	8.481	63	163624	20.960
78) Dibromomethane	(1)	8.639	93	96659	20.456
81) Bromodichloromethane	(1)	8.840	83	173749	22.070
84) cis-1,3-Dichloropropene	(1)	9.418	75	237832	20.900
85) 4-Methyl-2-Pentanone	(1)	9.588	43	1115500	95.170
86)$Toluene-d8	(2)	9.722	98	1350080	50.957
88) Toluene	(2)	9.801	92	382436	21.312
89) trans-1,3-Dichloropropene	(2)	10.050	75	203418	19.138
91) 1,1,2-Trichloroethane	(2)	10.227	97	140663	19.838
93) Tetrachloroethene	(2)	10.379	166	167072	24.399
94) 1,3-Dichloropropane	(2)	10.397	76	251503	20.417

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 09/05/2012 at 20:43.
Target 3.5 esignature user ID: sag03174

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s46.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 19:16 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 19:36 Automation

Sample Name: PAT16MSD Lab Sample ID: 6769197MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
96) Dibromochloromethane	(2)	10.622	129	144846	21.124
97) 1,2-Dibromoethane	(2)	10.738	107	149984	20.368
98) *Chlorobenzene-d5	(2)	11.170	117	946971	50.000
100) Chlorobenzene	(2)	11.194	112	429873	21.672
101) 1,1,1,2-Tetrachloroethane	(2)	11.261	131	135685	22.046
102) Ethylbenzene	(2)	11.291	91	683836	20.820
103) m+p-Xylene	(2)	11.395	106	571646	42.868
106) o-Xylene	(2)	11.735	106	272598	20.805
109) Styrene	(2)	11.760	104	435891	19.896
110) Bromoform	(2)	11.900	173	97933	20.337
111) Isopropylbenzene	(2)	12.027	105	699025	21.575
114) $4-Bromofluorobenzene	(2)	12.161	95	482472	50.087
116) 1,1,2,2-Tetrachloroethane	(3)	12.253	83	233343	17.943
117) Bromobenzene	(3)	12.289	156	182330	20.024
119) 1,2,3-Trichloropropane	(3)	12.295	110	66749	18.345
120) n-Propylbenzene	(3)	12.350	91	800197	19.914
121) 2-Chlorotoluene	(3)	12.429	126	165868	19.405
122) 1,3,5-Trimethylbenzene	(3)	12.484	105	580300	19.452
123) 4-Chlorotoluene	(3)	12.520	126	181452	19.409
124) tert-Butylbenzene	(3)	12.727	134	129772	19.913
126) 1,2,4-Trimethylbenzene	(3)	12.770	105	586996	19.405
127) sec-Butylbenzene	(3)	12.891	105	700911	19.952
129) 1,3-Dichlorobenzene	(3)	12.995	146	311017	20.249
128) p-Isopropyltoluene	(3)	12.995	119	607037	20.310
130) *1,4-Dichlorobenzene-d4	(3)	13.037	152	566539	50.000
131) 1,4-Dichlorobenzene	(3)	13.056	146	381777	19.637
136) n-Butylbenzene	(3)	13.293	92	309113	19.609
137) 1,2-Dichlorobenzene	(3)	13.329	146	338952	19.228
139) 1,2-Dibromo-3-Chloropropane	(3)	13.883	75	47566	15.977
140) 1,2,4-Trichlorobenzene	(3)	14.443	180	229826	19.051
141) Hexachlorobutadiene	(3)	14.516	225	87326	20.847
142) Naphthalene	(3)	14.619	128	741570	16.448
144) 1,2,3-Trichlorobenzene	(3)	14.765	180	230135	19.007

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sarah A. Guill
on 09/05/2012 at 20:43.
Target 3.5 esignature user ID: sag03174

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LCSN08

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN08

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s31.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	15	
74-87-3	Chloromethane	16	
75-01-4	Vinyl Chloride	16	
74-83-9	Bromomethane	13	
75-00-3	Chloroethane	14	
75-69-4	Trichlorofluoromethane	20	
75-35-4	1,1-Dichloroethene	21	
67-64-1	Acetone	150	
75-09-2	Methylene Chloride	20	
156-60-5	trans-1,2-Dichloroethene	21	
1634-04-4	Methyl Tertiary Butyl Ether	20	
75-34-3	1,1-Dichloroethane	21	
156-59-2	cis-1,2-Dichloroethene	20	
78-93-3	2-Butanone	150	
594-20-7	2,2-Dichloropropane	20	
74-97-5	Bromochloromethane	20	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	20	
563-58-6	1,1-Dichloropropene	18	
56-23-5	Carbon Tetrachloride	22	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	21	
79-01-6	Trichloroethene	20	
78-87-5	1,2-Dichloropropane	20	
74-95-3	Dibromomethane	20	
75-27-4	Bromodichloromethane	21	
10061-01-5	cis-1,3-Dichloropropene	21	
108-10-1	4-Methyl-2-Pentanone	100	
108-88-3	Toluene	20	
10061-02-6	trans-1,3-Dichloropropene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN08

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN08

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s31.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	22	
142-28-9	1,3-Dichloropropane	20	
124-48-1	Dibromochloromethane	21	
106-93-4	1,2-Dibromoethane	20	
108-90-7	Chlorobenzene	21	
630-20-6	1,1,1,2-Tetrachloroethane	21	
100-41-4	Ethylbenzene	20	
179601-23-1	m+p-Xylene	40	
95-47-6	o-Xylene	20	
100-42-5	Styrene	19	
75-25-2	Bromoform	21	
98-82-8	Isopropylbenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	18	
108-86-1	Bromobenzene	20	
96-18-4	1,2,3-Trichloropropane	18	
103-65-1	n-Propylbenzene	19	
95-49-8	2-Chlorotoluene	18	
108-67-8	1,3,5-Trimethylbenzene	18	
106-43-4	4-Chlorotoluene	19	
98-06-6	tert-Butylbenzene	19	
95-63-6	1,2,4-Trimethylbenzene	19	
135-98-8	sec-Butylbenzene	19	
99-87-6	p-Isopropyltoluene	19	
541-73-1	1,3-Dichlorobenzene	20	
106-46-7	1,4-Dichlorobenzene	19	
104-51-8	n-Butylbenzene	18	
95-50-1	1,2-Dichlorobenzene	19	
96-12-8	1,2-Dibromo-3-Chloropropane	16	
120-82-1	1,2,4-Trichlorobenzene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN08

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN08

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/12sep05b.b/ns05s31.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 09/05/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
87-68-3	Hexachlorobutadiene	18	
91-20-3	Naphthalene	17	
87-61-6	1,2,3-Trichlorobenzene	19	

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSN08

Data file: /chem/HP07159.i/12sep05b.b/ns05s31.d
Injection date and time: **05-SEP-2012 13:05**
Data file Sample Info. Line: LCSN08;LCSN08;1;3;LCS;;PLM;;ns05b05;
Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 Automation

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
26) t-Butyl Alcohol-d10	4.247	(-0.009)	437	65	372042	(-2)	250.00	
70) Fluorobenzene	7.708	(0.003)	1006	96	1472353	(-3)	50.00	
98) Chlorobenzene-d5	11.164	(0.003)	1574	117	1021474	(-4)	50.00	
130) 1,4-Dichlorobenzene-d4	13.037	(-0.009)	1882	152	603754	(-4)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
51) Dibromofluoromethane	(1)	6.790	(-0.001)	113	336949	51.197	102%		80 - 116
62) 1,2-Dichloroethane-d4	(1)	7.246	(0.000)	102	91378	51.910	104%		77 - 113
86) Toluene-d8	(2)	9.722	(0.000)	98	1456280	50.956	102%		80 - 113
114) 4-Bromofluorobenzene	(2)	12.155	(0.000)	95	519785	50.025	100%		78 - 113

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
1) Dichlorodifluoromethane	(1)	1.953	(-0.000)	85	149274	15.419	15.42			1	5
3) Chloromethane	(1)	2.081	(0.001)	50	138827	16.106	16.11			1	5
4) Vinyl Chloride	(1)	2.221	(0.001)	62	143877	16.488	16.49			1	5
5) Bromomethane	(1)	2.550	(0.001)	94	69958	13.250	13.25			1	5
7) Chloroethane	(1)	2.647	(0.001)	64	62212	13.928	13.93			1	5
8) Trichlorofluoromethane	(1)	2.975	(0.001)	101	189483	19.532	19.53			1	5
16) 1,1-Dichloroethene	(1)	3.572	(0.000)	96	126349	21.095	21.10			0.8	5
19) Acetone	(1)	3.608	(0.000)	58	185012	149.735	149.73			6	20
25) Methylene Chloride	(1)	4.210	(0.000)	84	155907	20.441	20.44			2	5
29) trans-1,2-Dichloroethene	(1)	4.630	(-0.000)	96	144395	20.931	20.93			0.8	5
30) Methyl Tertiary Butyl Ether	(1)	4.624	(0.000)	73	481387	19.881	19.88			0.5	5
36) 1,1-Dichloroethane	(1)	5.257	(-0.000)	63	272326	20.688	20.69			1	5
40) cis-1,2-Dichloroethene	(1)	6.120	(-0.000)	96	160403	20.330	20.33			0.8	5
42) 2-Butanone	(1)	6.139	(0.000)	43	866406	148.584	148.58			3	10
44) 2,2-Dichloropropane	(1)	6.120	(0.000)	77	192164	20.190	20.19			1	5
48) Bromochloromethane	(1)	6.443	(-0.000)	128	79330	19.598	19.60			1	5
50) Chloroform	(1)	6.558	(0.000)	83	237681	19.142	19.14			0.8	5
53) 1,1,1-Trichloroethane	(1)	6.826	(-0.000)	97	208363	20.398	20.40			0.8	5
58) 1,1-Dichloropropene	(1)	7.057	(-0.000)	75	194532	18.498	18.50			1	5
59) Carbon Tetrachloride	(1)	7.051	(0.000)	117	162547	21.712	21.71			1	5
65) Benzene	(1)	7.331	(-0.000)	78	611957	20.234	20.23			0.5	5
66) 1,2-Dichloroethane	(1)	7.349	(-0.000)	62	197142	20.579	20.58			1	5
74) Trichloroethene	(1)	8.201	(-0.000)	95	150756	20.150	20.15			1	5
76) 1,2-Dichloropropane	(1)	8.481	(-0.000)	63	170889	20.429	20.43			1	5
78) Dibromomethane	(1)	8.639	(-0.000)	93	101958	20.137	20.14			1	5
81) Bromodichloromethane	(1)	8.840	(-0.000)	83	180944	21.449	21.45			1	5
84) cis-1,3-Dichloropropene	(1)	9.418	(-0.001)	75	258959	21.237	21.24			1	5
85) 4-Methyl-2-Pentanone	(1)	9.588	(-0.000)	43	1253920	99.836	99.84			3	10
88) Toluene	(2)	9.801	(-0.000)	92	388270	20.059	20.06			0.7	5
89) trans-1,3-Dichloropropene	(2)	10.044	(-0.001)	75	226137	19.724	19.72			1	5
91) 1,1,2-Trichloroethane	(2)	10.227	(-0.000)	97	149681	19.570	19.57			0.8	5

Digitally signed by Emily R. Styer on 09/05/2012 at 13:28. Target 3.5 esignature user ID: ers02237

Data file: /chem/HP07159.i/12sep05b.b/ns05s31.d Injection date and time: **05-SEP-2012 13:05**
Data file Sample Info. Line: LCSN08;LCSN08;1;3;LCS;;PLM;;ns05b05; Instrument ID: **HP07159.i** Batch: **N122492AA**
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 Automation

Blank Data file reference: **/chem/HP07159.i/12sep05b.b/ns05b05.d**

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: **8732**
Calibration date and time (Last Method Edit): 05-SEP-2012 13:23
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/12sep05b.b/ns05c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

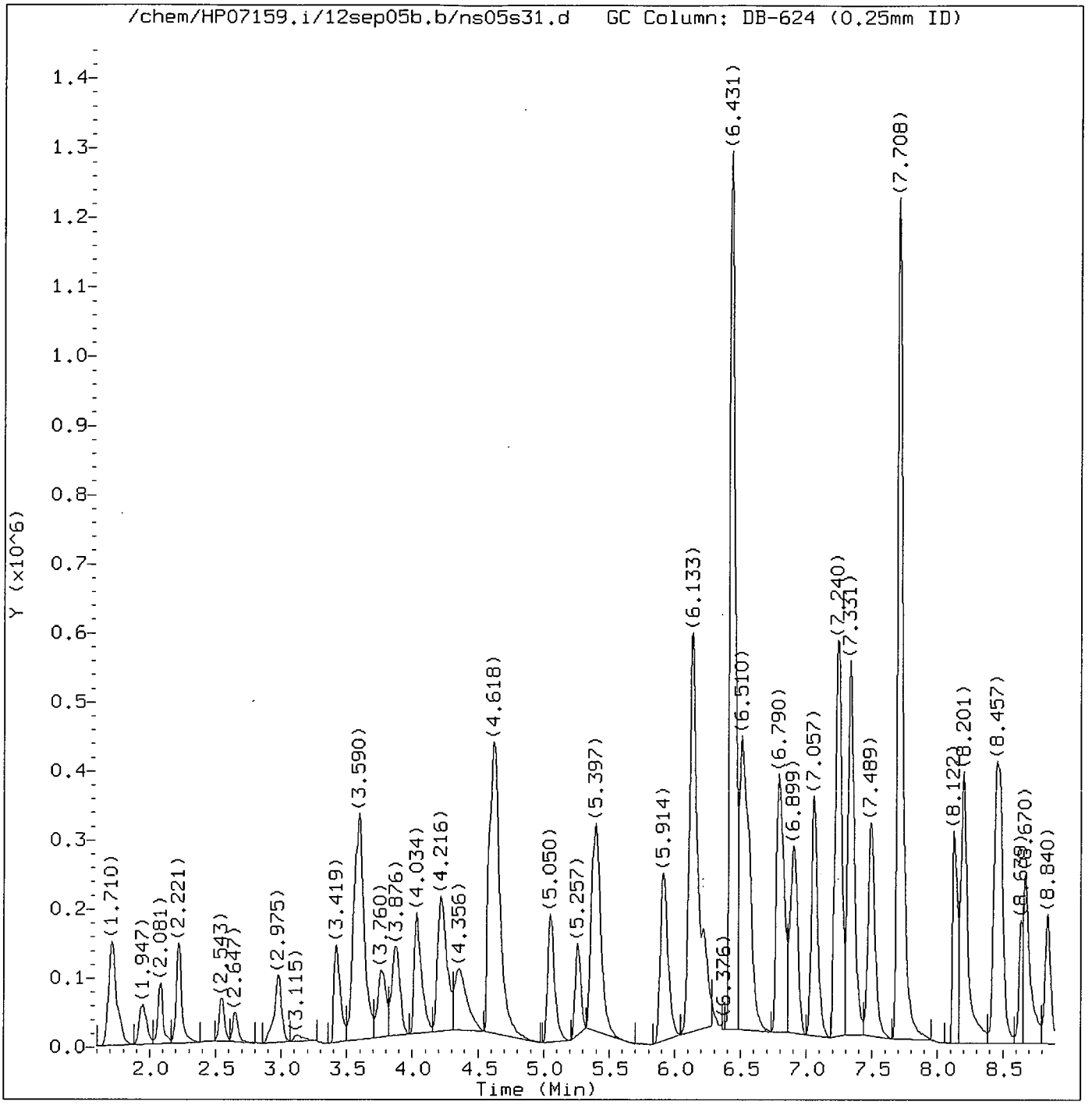
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
93) Tetrachloroethene	(2)	10.379(-0.000)	166	162042	21.939	21.94			0.8	5
94) 1,3-Dichloropropane	(2)	10.397(-0.000)	76	265389	19.973	19.97			1	5
96) Dibromochloromethane	(2)	10.622(-0.000)	129	152659	20.644	20.64			1	5
97) 1,2-Dibromoethane	(2)	10.738(-0.000)	107	159677	20.103	20.10			1	5
100) Chlorobenzene	(2)	11.194(-0.000)	112	438938	20.515	20.52			0.8	5
101) 1,1,1,2-Tetrachloroethane	(2)	11.255(-0.000)	131	138827	20.911	20.91			1	5
102) Ethylbenzene	(2)	11.292(-0.001)	91	694293	19.597	19.60			0.8	5
103) m+p-Xylene	(2)	11.395(-0.001)	106	580138	40.331	40.33			0.8	5
106) o-Xylene	(2)	11.736(-0.001)	106	282970	20.022	20.02			0.8	5
109) Styrene	(2)	11.760(-0.001)	104	458574	19.405	19.40			1	5
110) Bromoform	(2)	11.900(-0.000)	173	107532	20.669	20.67			1	5
111) Isopropylbenzene	(2)	12.028(-0.000)	105	704148	20.148	20.15			1	5
116) 1,1,2,2-Tetrachloroethane	(3)	12.253(0.000)	83	254010	18.328	18.33			1	5
117) Bromobenzene	(3)	12.289(0.000)	156	189907	19.571	19.57			1	5
119) 1,2,3-Trichloropropane	(3)	12.295(0.000)	110	71517	18.444	18.44			1	5
120) n-Propylbenzene	(3)	12.350(0.000)	91	802008	18.729	18.73			1	5
121) 2-Chlorotoluene	(3)	12.429(0.000)	126	168044	18.448	18.45			1	5
122) 1,3,5-Trimethylbenzene	(3)	12.484(0.000)	105	584492	18.384	18.38			1	5
123) 4-Chlorotoluene	(3)	12.520(-0.000)	126	187867	18.857	18.86			1	5
124) tert-Butylbenzene	(3)	12.733(-0.000)	134	129033	18.579	18.58			1	5
126) 1,2,4-Trimethylbenzene	(3)	12.770(0.000)	105	596661	18.509	18.51			1	5
127) sec-Butylbenzene	(3)	12.891(0.000)	105	692758	18.504	18.50			1	5
128) p-Isopropyltoluene	(3)	12.995(-0.000)	119	604512	18.979	18.98			1	5
129) 1,3-Dichlorobenzene	(3)	12.995(-0.000)	146	319875	19.542	19.54			1	5
131) 1,4-Dichlorobenzene	(3)	13.056(0.000)	146	396111	19.118	19.12			1	5
136) n-Butylbenzene	(3)	13.293(0.000)	92	306522	18.246	18.25			1	5
137) 1,2-Dichlorobenzene	(3)	13.329(0.000)	146	354203	18.854	18.85			1	5
139) 1,2-Dibromo-3-Chloropropane	(3)	13.883(-0.000)	75	51854	16.344	16.34			2	5
140) 1,2,4-Trichlorobenzene	(3)	14.443(-0.000)	180	239529	18.632	18.63			1	5
141) Hexachlorobutadiene	(3)	14.516(0.000)	225	82428	18.464	18.46			2	5
142) Naphthalene	(3)	14.619(-0.000)	128	807075	16.798	16.80			1	5
144) 1,2,3-Trichlorobenzene	(3)	14.765(-0.000)	180	240560	18.644	18.64			1	5

Total number of targets = 63

Digitally signed by Emily R. Styer on 09/05/2012 at 13:28. Target 3.5 esignature user ID: ers02237

Secondary review performed and digitally signed by Sara E. Johnson on 09/06/2012 at 16:24. Parallax ID: sej02002



Total Ion Chromatogram (TIC)

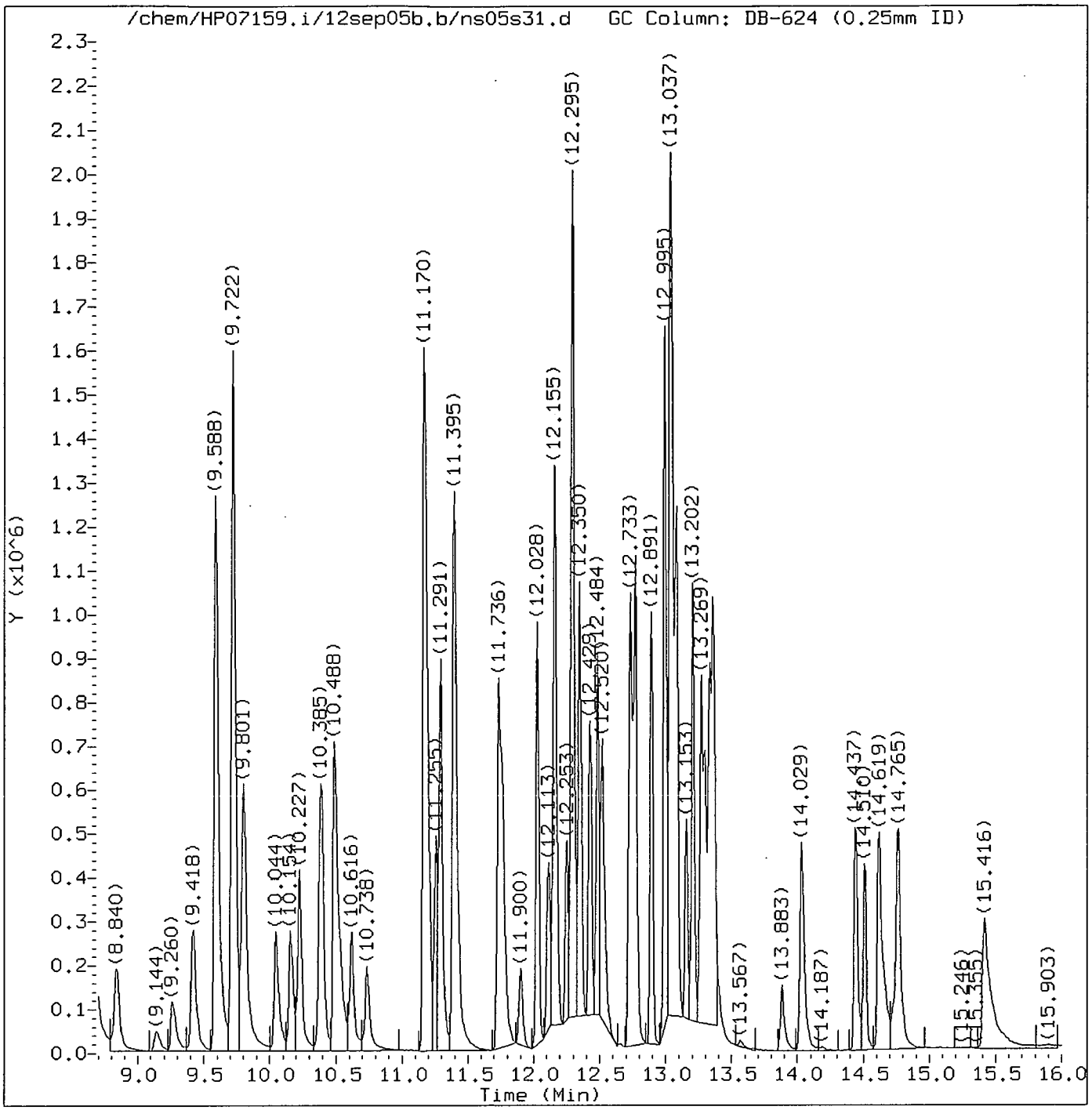
Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s31.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 13:05 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 Automation

Sample Name: LCSN08 Lab Sample ID: LCSN08

Digitally signed by Emily R. Styer
on 09/05/2012 at 13:28.
Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s31.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 13:05 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 Automation

Sample Name: LCSN08 Lab Sample ID: LCSN08

Digitally signed by Emily R. Styer
on 09/05/2012 at 13:28.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s31.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 13:05 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 Automation

Sample Name: LCSN08 Lab Sample ID: LCSN08

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
1) Dichlorodifluoromethane	(1)	1.953	85	149274	15.419
3) Chloromethane	(1)	2.081	50	138827	16.106
4) Vinyl Chloride	(1)	2.221	62	143877	16.488
5) Bromomethane	(1)	2.550	94	69958	13.250
7) Chloroethane	(1)	2.647	64	62212	13.928
8) Trichlorofluoromethane	(1)	2.975	101	189483	19.532
16) 1,1-Dichloroethene	(1)	3.572	96	126349	21.095
19) Acetone	(1)	3.608	58	185012	149.735
25) Methylene Chloride	(1)	4.210	84	155907	20.441
26)*t-Butyl Alcohol-d10	(4)	4.247	65	372042	250.000
30) Methyl Tertiary Butyl Ether	(1)	4.624	73	481387	19.881
29) trans-1,2-Dichloroethene	(1)	4.630	96	144395	20.931
36) 1,1-Dichloroethane	(1)	5.257	63	272326	20.688
40) cis-1,2-Dichloroethene	(1)	6.121	96	160403	20.330
44) 2,2-Dichloropropane	(1)	6.121	77	192164	20.190
42) 2-Butanone	(1)	6.139	43	866406	148.584
48) Bromochloromethane	(1)	6.443	128	79330	19.598
50) Chloroform	(1)	6.559	83	237681	19.142
51)$Dibromofluoromethane	(1)	6.790	113	336949	51.197
53) 1,1,1-Trichloroethane	(1)	6.826	97	208363	20.398
59) Carbon Tetrachloride	(1)	7.051	117	162547	21.712
58) 1,1-Dichloropropene	(1)	7.057	75	194532	18.498
62)$1,2-Dichloroethane-d4	(1)	7.246	102	91378	51.910
65) Benzene	(1)	7.331	78	611957	20.234
66) 1,2-Dichloroethane	(1)	7.349	62	197142	20.579
70)*Fluorobenzene	(1)	7.708	96	1472353	50.000
74) Trichloroethene	(1)	8.201	95	150756	20.150
76) 1,2-Dichloropropane	(1)	8.481	63	170889	20.429
78) Dibromomethane	(1)	8.639	93	101958	20.137
81) Bromodichloromethane	(1)	8.840	83	180944	21.449
84) cis-1,3-Dichloropropene	(1)	9.418	75	258959	21.237
85) 4-Methyl-2-Pentanone	(1)	9.588	43	1253920	99.836
86)$Toluene-d8	(2)	9.722	98	1456280	50.956
88) Toluene	(2)	9.801	92	388270	20.059
89) trans-1,3-Dichloropropene	(2)	10.044	75	226137	19.724
91) 1,1,2-Trichloroethane	(2)	10.227	97	149681	19.570
93) Tetrachloroethene	(2)	10.379	166	162042	21.939
94) 1,3-Dichloropropane	(2)	10.397	76	265389	19.973

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/12sep05b.b/ns05s31.d Instrument ID: HP07159.i
Injection date and time: 05-SEP-2012 13:05 Analyst ID: ERS02237

Method used: /chem/HP07159.i/12sep05b.b/N826W.m Sublist used: 8732
Calibration date and time: 05-SEP-2012 13:23
Date, time and analyst ID of latest file update: 05-Sep-2012 13:25 Automation

Sample Name: LCSN08 Lab Sample ID: LCSN08

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
96) Dibromochloromethane	(2)	10.622	129	152659	20.644
97) 1,2-Dibromoethane	(2)	10.738	107	159677	20.103
98) *Chlorobenzene-d5	(2)	11.164	117	1021474	50.000
100) Chlorobenzene	(2)	11.194	112	438938	20.515
101) 1,1,1,2-Tetrachloroethane	(2)	11.255	131	138827	20.911
102) Ethylbenzene	(2)	11.291	91	694293	19.597
103) m+p-Xylene	(2)	11.395	106	580138	40.331
106) o-Xylene	(2)	11.736	106	282970	20.022
109) Styrene	(2)	11.760	104	458574	19.405
110) Bromoform	(2)	11.900	173	107532	20.669
111) Isopropylbenzene	(2)	12.028	105	704148	20.148
114) $4-Bromofluorobenzene	(2)	12.155	95	519785	50.025
116) 1,1,2,2-Tetrachloroethane	(3)	12.253	83	254010	18.328
117) Bromobenzene	(3)	12.289	156	189907	19.571
119) 1,2,3-Trichloropropane	(3)	12.295	110	71517	18.444
120) n-Propylbenzene	(3)	12.350	91	802008	18.729
121) 2-Chlorotoluene	(3)	12.429	126	168044	18.448
122) 1,3,5-Trimethylbenzene	(3)	12.484	105	584492	18.384
123) 4-Chlorotoluene	(3)	12.520	126	187867	18.857
124) tert-Butylbenzene	(3)	12.733	134	129033	18.579
126) 1,2,4-Trimethylbenzene	(3)	12.770	105	596661	18.509
127) sec-Butylbenzene	(3)	12.891	105	692758	18.504
129) 1,3-Dichlorobenzene	(3)	12.995	146	319875	19.542
128) p-Isopropyltoluene	(3)	12.995	119	604512	18.979
130) *1,4-Dichlorobenzene-d4	(3)	13.037	152	603754	50.000
131) 1,4-Dichlorobenzene	(3)	13.056	146	396111	19.118
136) n-Butylbenzene	(3)	13.293	92	306522	18.246
137) 1,2-Dichlorobenzene	(3)	13.329	146	354203	18.854
139) 1,2-Dibromo-3-Chloropropane	(3)	13.883	75	51854	16.344
140) 1,2,4-Trichlorobenzene	(3)	14.443	180	239529	18.632
141) Hexachlorobutadiene	(3)	14.516	225	82428	18.464
142) Naphthalene	(3)	14.619	128	807075	16.798
144) 1,2,3-Trichlorobenzene	(3)	14.765	180	240560	18.644

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 09/05/2012 at 13:28.
Target 3.5 esignature user ID: ers02237

Daliz Estades Santaliz

Licensed Chemist

To Whom It May Concern:

I, Daliz M. Estades Santaliz, in my capacity as Puerto Rico Certified Chemist, hereby certify the attached Analytical Results from Project Number PTL-09, Project Name GE Patillas, Puerto Rico, and Laboratory ID Numbers:

6769183	6769194
6769184	6769195
6769185	6769196
6769186	6769197
6769187	6769198
6769188	6769199
6769189	6769200
6769190	6769201
6769191	6769202
6769192	6769203
6769193	6769204

Lcda. Daliz M. Estades Santaliz

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Dorado, PR 00646-0727

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL09

Report Date: 9/7/2012 13:41
Submit Date: 8/28/2012 9:25

Analysis Name	Units	6769183 TB-082712 Result	MDL	6769184 P-23 Result	MDL	6769185 P-11 Result	MDL
Acetone	ug/l	N.D.	6	28	6	9 J	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	N.D.	3	13	3	6 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5

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2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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SDG: PTL09

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4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

Analysis Name	Units	6769186 P-4 Result	MDL	6769187 P-9 Result	MDL	6769188 P-10A Result	MDL
Acetone	ug/l	10 J	6	N.D.	6	10 J	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	8 J	3	N.D.	3	8 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1

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SDG: PTL09

Report Date: 9/7/2012 13:41
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Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	5 J	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	N.D.	0.8	1 J	0.8	120	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

		6769189		6769190		6769191	
Analysis Name	Units	P-8	MDL	P-15DD	MDL	P-7	MDL
		Result		Result		Result	

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PO Box 12425
Lancaster, PA 17605-2425
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Acetone	ug/l	N.D.	6	12 J	6	11 J	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	N.D.	3	7 J	3	6 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	11	1	2 J	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	170	0.8	59	0.8	N.D.	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1

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PO Box 12425
Lancaster, PA 17605-2425
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Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	52	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

		6769192		6769193		6769194	
Analysis Name	Units	P-7A	MDL	Water for Vault	MDL	Duplicate	MDL
		Result		Result		Result	
Acetone	ug/l	7 J	6	14 J	6	10 J	6
Benzene	ug/l	N.D.	0.5	3 J	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	7 J	3	N.D.	3	8 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1

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1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	47	1	5 J	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	2 J	0.8	9	0.8	120	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	26	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	3 J	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	1 J	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	95	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	41	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	2 J	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

Analysis Name	Units	6769195 P-16S Result	MDL	6769196 P-16SMS Result	MDL	6769197 P-16SMSD Result	MDL
Acetone	ug/l	9 J	6	160	6	160	6
Benzene	ug/l	N.D.	0.5	22	0.5	21	0.5
Bromobenzene	ug/l	N.D.	1	20	1	20	1

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2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
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Bromochloromethane	ug/l	N.D.	1	21	1	21	1
Bromodichloromethane	ug/l	N.D.	1	22	1	22	1
Bromoform	ug/l	N.D.	1	21	1	20	1
Bromomethane	ug/l	N.D.	1	12	1	15	1
2-Butanone	ug/l	7 J	3	160	3	160	3
n-Butylbenzene	ug/l	N.D.	1	20	1	20	1
sec-Butylbenzene	ug/l	N.D.	1	20	1	20	1
tert-Butylbenzene	ug/l	N.D.	1	20	1	20	1
Carbon Tetrachloride	ug/l	N.D.	1	25	1	25	1
Chlorobenzene	ug/l	N.D.	0.8	22	0.8	22	0.8
Chloroethane	ug/l	N.D.	1	15	1	18	1
Chloroform	ug/l	N.D.	0.8	21	0.8	20	0.8
Chloromethane	ug/l	N.D.	1	15	1	18	1
2-Chlorotoluene	ug/l	N.D.	1	20	1	19	1
4-Chlorotoluene	ug/l	N.D.	1	20	1	19	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	16	2	16	2
Dibromochloromethane	ug/l	N.D.	1	21	1	21	1
1,2-Dibromoethane	ug/l	N.D.	1	21	1	20	1
Dibromomethane	ug/l	N.D.	1	21	1	20	1
1,2-Dichlorobenzene	ug/l	N.D.	1	20	1	19	1
1,3-Dichlorobenzene	ug/l	N.D.	1	21	1	20	1
1,4-Dichlorobenzene	ug/l	N.D.	1	20	1	20	1
Dichlorodifluoromethane	ug/l	N.D.	1	17	1	20	1
1,1-Dichloroethane	ug/l	N.D.	1	23	1	23	1
1,2-Dichloroethane	ug/l	N.D.	1	22	1	22	1
1,1-Dichloroethene	ug/l	N.D.	0.8	25	0.8	24	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	22	0.8	22	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	23	0.8	23	0.8
1,2-Dichloropropane	ug/l	N.D.	1	21	1	21	1
1,3-Dichloropropane	ug/l	N.D.	1	20	1	20	1
2,2-Dichloropropane	ug/l	N.D.	1	23	1	23	1
1,1-Dichloropropene	ug/l	N.D.	1	21	1	21	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	21	1	21	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	20	1	19	1
Ethylbenzene	ug/l	N.D.	0.8	21	0.8	21	0.8
Hexachlorobutadiene	ug/l	N.D.	2	21	2	21	2
Isopropylbenzene	ug/l	N.D.	1	22	1	22	1
p-Isopropyltoluene	ug/l	N.D.	1	20	1	20	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	20	0.5	20	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	96	3	95	3
Methylene Chloride	ug/l	N.D.	2	22	2	21	2
Naphthalene	ug/l	N.D.	1	16	1	16	1
n-Propylbenzene	ug/l	N.D.	1	20	1	20	1
Styrene	ug/l	N.D.	1	20	1	20	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	22	1	22	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	18	1	18	1

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Tetrachloroethene	ug/l	N.D.	0.8	24	0.8	24	0.8
Toluene	ug/l	N.D.	0.7	21	0.7	21	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	19	1	19	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	19	1	19	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	23	0.8	23	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	20	0.8	20	0.8
Trichloroethene	ug/l	N.D.	1	22	1	22	1
Trichlorofluoromethane	ug/l	N.D.	1	21	1	24	1
1,2,3-Trichloropropane	ug/l	N.D.	1	19	1	18	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	20	1	19	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	20	1	19	1
Vinyl Chloride	ug/l	N.D.	1	16	1	19	1
m+p-Xylene	ug/l	N.D.	0.8	43	0.8	43	0.8
o-Xylene	ug/l	N.D.	0.8	21	0.8	21	0.8

Analysis Name	Units	6769198 P-19D Result	MDL	6769199 P-19S Result	MDL	6769200 P-17D Result	MDL
Acetone	ug/l	12 J	6	14 J	6	6 J	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	9 J	3	9 J	3	6 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	3 J	0.8	2 J	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1

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2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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1,1-Dichloroethene	ug/l	2 J	0.8	N.D.	0.8	1 J	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

Analysis Name	Units	6769201 P-18S Result	MDL	6769202 P-18D Result	MDL	6769203 P-20S Result	MDL
Acetone	ug/l	12 J	6	11 J	6	14 J	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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2-Butanone	ug/l	8 J	3	9 J	3	9 J	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	3 J	0.8	2 J	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	14	0.8	21	0.8	N.D.	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1

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2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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1,1,1-Trichloroethane	ug/l	1 J	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

Analysis Name	Units	6769204 P-20D Result	MDL
Acetone	ug/l	6 J	6
Benzene	ug/l	N.D.	0.5
Bromobenzene	ug/l	N.D.	1
Bromochloromethane	ug/l	N.D.	1
Bromodichloromethane	ug/l	N.D.	1
Bromoform	ug/l	N.D.	1
Bromomethane	ug/l	N.D.	1
2-Butanone	ug/l	6 J	3
n-Butylbenzene	ug/l	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8
Chloroethane	ug/l	N.D.	1
Chloroform	ug/l	N.D.	0.8
Chloromethane	ug/l	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2
Dibromochloromethane	ug/l	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1
Dibromomethane	ug/l	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1
1,1-Dichloroethene	ug/l	7	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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1,3-Dichloropropane	ug/l	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2
Isopropylbenzene	ug/l	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3
Methylene Chloride	ug/l	N.D.	2
Naphthalene	ug/l	N.D.	1
n-Propylbenzene	ug/l	N.D.	1
Styrene	ug/l	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8
Toluene	ug/l	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8
Trichloroethene	ug/l	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1
Vinyl Chloride	ug/l	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8

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2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

USEPA
Hazardous Waste Support Branch
Validating Volatile Organic Compounds
By Gas Chromatography/Mass Spectrometry
SW-846 Method 8260B

Prepared by: _____ Date: 12/8/06
George Karras, Chemist
Hazardous Waste Support Section

Prepared by: _____ Date: 12/8/06
Russell Arnone, Chemist
Hazardous Waste Support Section

Concurred by: _____ Date: 12/8/06
Linda Mauel, Chief
Hazardous Waste Support Section

Approved by: _____ Date: 12/11/06
Robert Runyon, Chief
Hazardous Waste Support Branch

Annual Review

Reviewed by: _____ Date: _____
Name

Reviewed by: _____ Date: _____
Name

Scope and Applicability

This SOP offers detailed guidance in evaluating laboratory data generated according to the USEPA SW-846, Method 8260B December 1996. The validation methods and actions discussed in this document are based on the requirements set forth in USEPA SW-846, Method 8260B and Method 8000C, Rev 3, March 2003; and "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," January, 2005. This document covers technical as well as method specific problems; however situations may arise where data limitations must be assessed based on the reviewer's own professional judgement.

Summary

To ensure a thorough evaluation of each result in a data case, the reviewer must complete the checklist within this SOP, answering specific questions while performing the prescribed "ACTIONS" in each section. Qualifiers (or flags) are applied to questionable or unusable results as instructed. The data qualifiers discussed in this document are defined on page 4.

The reviewer must prepare a detailed data assessment to be submitted along with the complete SOP checklist. The Data Assessment must list all data qualifications, reasons for qualifications, instances of missing data, and contract non-compliance.

DEFINITIONS

Acronyms

BNA - base neutral acid(another name for Semi Volatiles)
CLP - Contract Laboratory Program
CRQL - Contract Required Quantitation Limit
CF - calibration factor
%D - percent difference
DCB -decachlorobiphenyl
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenylethane
DDT - dichlorodiphenyltrichloroethane
DoC - Date of Collection
GC - gas chromatography
GC/ECD - gas chromatograph/electron capture detector
GC/MS - gas chromatograph/mass spectrometer
GPC - gel permeation chromatography
IS - internal standard
kg - kilogram
µg - microgram
MS - matrix spike
MSD - matrix spike duplicate
ℓ - liter
mℓ - milliliter
PCB - Polychlorinated biphenyl
PE - performance evaluation
PEM - Performance Evaluation Mixture
QC - quality control
RAS - Routine Analytical Services
RIC - reconstructed ion chromatogram
RPD - relative percent difference
RRF - relative response factor
RRF - average relative response factor (from initial calibration)
RRT - relative retention time
RSD - relative standard deviation
RT - retention time
RSCC - Regional Sample Control Center
SDG - sample delivery group
SMC - system monitoring compound
SOP - standard operating procedure
SOW - Statement of Work
SVOA - semivolatile organic acid
TCL - Target Compound List
TCLP - Toxicity Characteristics Leachate Procedure
TCX -tetrachloro-m-xylene
TIC - tentatively identified compound

TOPO - Task Order Project Officer
TPO - Technical Project Officer
VOA - Volatile organic
VTSR - Validated Time of Sample Receipt

Data Qualifiers

U -The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J -The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N -The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

JN -The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ -The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R -The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

LAB QUALIFIERS:

D - The positive value is the result of an analysis at a secondary dilution factor.

B - The analyte is present in the associated method blank as well as in the sample. This qualifier has a different meaning when validating inorganic data.

E - The concentration of this analyte exceeds the calibration range of the instrument.

A - Indicates a Tentatively Identified Compound (TIC) is a suspected adol-condensation product.

X,Y,Z- Laboratory defined flags. The data reviewer must change these qualifiers during validation so that the data user may understand their impact on the data.

YES NO N/A

I. PACKAGE COMPLETENESS AND DELIVERABLES

CASE NUMBER: PTL - 09 LAB: Lancaster Laboratories

SITE NAME: GE Patillas - Puerto Rico

1.0 Data Completeness and Deliverables

1.1 Has all data been submitted in CLP deliverable format or CLP Forms Equivalent? [X] ___ ___

ACTION: If not, note the effect on review of the data in the Data Assessment narrative.

2.0 Cover Letter, SDG Narrative

2.1 Is a laboratory narrative, and/or cover letter signed release present? [X] ___ ___

2.2 Are case number and SDG number(s) contained in the narrative or cover letter? [X] ___ ___

ACTION: If not, note the effect on review of the data in the Data Assessment narrative.

II. VOLATILE ANALYSES

1.0 Traffic Reports and Laboratory Narrative

1.1 Are the Traffic Reports, and/or Chain of Custodies from the field samplers present for all samples sign release present? [X] ___ ___

ACTION: If no, contact the laboratory/sampling team for replacement of missing or illegible copies.

1.2 Is a sampling trip report present (if required)? [X] ___ ___

1.3 Sample Conditions/Problems

YES NO N/A

1.3.1 Do the Traffic Reports, Chain of Custodies, or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special notations affecting the quality of the data? X [ ] ___

ACTION: If all the VOA vials for a sample have air bubbles or the VOA vial analyzed had air bubbles, flag all positive results "J" and all non-detects "R".

ACTION: If any sample analyzed as a soil, other than TCLP, contains 50%-90% water, all data should be flagged as estimated ("J"). If a soil sample, other than TCLP, contains more than 90% water, flag all positive results "J" and all non-detects "R".

ACTION: If samples were not iced or if the ice was melted upon receipt at the laboratory and the temperature of the cooler was elevated (>10°C), flag all positive results "J" and all non-detects non"UJ".

2.0 Holding Times

2.1 Have any volatile holding times, determined from date of collection to date of analysis, been exceeded?

___ [X] ___

The maximum holding time for aqueous samples is 14 days.

The maximum holding time for soils non aqueous samples is 14 days.

NOTE: If unpreserved, aqueous samples maintained at 4°C for aromatic hydrocarbons analysis must be analyzed within 7 days. If preserved with HCL acid to a pH<2 and stored at 4°C,then aqueous samples must be analyzed within 14 days from time of collection. For non-aqueous samples for volatile components that are frozen (less than 7°C) or are properly cooled (4°C ± 2°C) and perserved with $NaHSO_4$, the maximum holding time is 14 days from sample collection. If

YES NO N/A

uncertain about preservation, contact the laboratory /sampling team to determine whether or not samples were preserved.

ACTION: Qualify sample results according to Table 1:

Table 1. Holding Time Actions for Trace Volatile Analysis

Matrix	Preserved	Criteria	Action	
			Detected Associated Compounds	Non-Detected Associated Compounds
Aqueous	No	≤7 days	No qualifications	
	No	> 7 days	J	R
	Yes	≤14 days	No qualifications	
	Yes	> 14 days	J	R
Non Aqueous	No	≤ 14 days	J	R
	Yes	≤ 14 days	No qualifications	
	Yes/No	> 14 days	J	R

3.0 Surrogate Recovery (CLP Form II Equivalent)

3.1 Have the volatile surrogate recoveries been listed on Surrogate Recovery forms for each of the following matrices:

a. Water [X] ___ ___

b. Soil [ ] ___ X

3.2 If so, are all the samples listed on the appropriate Surrogate Recovery forms for each matrix:

a. Water [X] ___ ___

b. Soil [ ] ___ X

ACTION: If large errors exist, deliverables are unavailable or information is missing, document the effect(s) in Data

YES NO N/A

Assessments and contact the laboratory/project officer/appropriate official for an explanation /resubmittal,make any necessary corrections and document effect in the Data Assessment.

3.3 Were the surrogate recovery limits followed per Table 2. If Table 2 criteria were not followed, the laboratory may use in-house performance criteria (per SW-846, Method 8000C, sectiom 9.7). Other compounds may be used as surrogates, depending upon the analysis requirements. [X] ___ ___

Table 2. Surrogate Spike Recovery Limits for Water and Soil/Sediments

DMC	Recovery Limits (%)Water	Recovery Limits Soil/Sediment
4-Bromofluorobenzene	~~80-120~~ 78-113	70-130
Dibromofluoromethane	~~80-120~~ 80-116	70-130
Toluene-d_8	~~80-120~~ 80-113	70-130
Dichloroethane-d_4	~~80-120~~ 77-113	70-130

Note: Use above table if laboratory did not provide in house recovery criteria.

Note: Other compounds may be used as surrogated depending upon the analysis requirements.

3.4 Were outliers marked correctly with an asterisk? [X] ___ ___

ACTION: Circle all outliers with a red pencil.

3.5 Were one or more volatile surrogate recoveries out of specification for any sample or method blank. Table 2. [ ] X ___

If yes, were samples reanalyzed? [ ] ___ X

Were method blanks reanalyzed? [ ] ___ X

YES NO N/A

ACTION: If all surrogate recoveries are > 10% but 1 or more compounds do not meet method specifications:

1. Flag all positive results as estimated ("J").
2. Flag all non-detects as estimated detection limits ("UJ") when recoveries are less than the lower acceptance limit.
3. If recoveries are greater than the upper acceptance limit, do not qualify non-detects, but qualify positive results as estimated "J".

If any surrogate has a recovery of < 10%:

1. Positive results are qualified with ("J").
2. Non-detects for that should be qualified as unusable ("R").

NOTE: Professional judgement should be used to qualify data that have method blank surrogate recoveries out of specification in both original and reanalyses. The basic concern is whether the blank problems represent an isolated problem with the blank alone or whether there is a fundamental problem with the analytical process. If one or more samples in the batch show acceptable surrogate recoveries, the reviewer may choose the blank problem to be an isolated occurrence.

3.6 Are there any transcription/calculation errors between raw data and reported data? [ ] X ___

ACTION: If large errors exist, take action as specified in section 3.2 above.

4.0 Laboratory Control Sample(Form III/Equivalent)

4.1 Is the LCS prepared, extracted, analyzed, and reported once for every 20 field samples of a similar matrix, per SDG. [X] ___ ___

YES NO N/A

Note: LCS consists of an aliquot of a clean (control) matrix similar to the sample matrix and of the same weight or volume.

ACTION: If any Laboratory Control Sample data are missing, call the lab for explanation /resubmittals. Make note in the data assessment.

4.2 Were the Laboratory Control Samples analyzed at the required frequency for each of the following matrices:

A.	Water	[x]	___	___
B.	Soil	[ ]	___	x
C.	Med Soil	[ ]	___	x

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

4.3 Have in house LCS recovery limits been developed (Method 8000C, Sect 9.7). [x] ___ ___

4.4 If in house limits are not developed, are LCS acceptance recovery limits between 70 - 130% (Method 8000c Sect 9.5)? [ ] ___ x

4.5 Were one or more of the volatile LCS recoveries outside the in house laboratory recovery criteria for spiked analytes? If in house limits are not present use 70 - 130% recovery limits.
[ ] x ___

YES NO N/A

Table 3. LCS Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	**Non-Detected Spiked Compounds**
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

5.0 Matrix Spikes(Form III or equivalent)

5.1 Are all data for matrix spike and matrix duplicate or matrix spike duplicate (MS/MD or MS/MSD) present and complete for each matrix? [X] ___ ___

NOTE: The laboratory should use one matrix spike and a duplicate analysis of an unspiked field sample if target analytes are expected in the sample. If the sample is not expected to contain target analytes, a MS/MSD should be analyzed (SW-846, Method 8260B, Sect 8.4.2).

5.2 Have MS/MD or MS/MSD results been summarized on modified CLP Form III? [X] ___ ___

ACTION: If any data are missing take action as specified in section 3.2 above.

5.3 Were matrix spikes analyzed at the required frequency for each of the following matrices? (One MS/MD, MS/MSD or laboratory replicate must be performed for every 20 samples

YES NO N/A

of similar matrix or concentration level. Laboratories analyzing one to ten samples per month are required to analyze at least one MS per month [page 8000C, section 9.5.])

a. Water [x] ___ ___

b. Waste [ ] ___ x

c. Soil/Solid [ ] ___ x

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene. The concentration of the LCS should be determined as described SW-Method 8000C Section 9.5.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

5.4 Have in house MS recovery limits been developed (Method 8000C, Sect 9.7)for each matrix. [x] ___ ___

5.5 Were one or more of the volatile MS/MSD recoveries outside of the in-house laboratory recovery criteria for spiked analytes? If none are present, then use 70-130% recovery as per SW-846, 8000C, Sect. 9.5.4. [___ x ___

ACTION: Circle all outliers with a red pencil.

NOTE: If any individual % recovery in the MS (or MSD) falls outside the designated range for recovery the reviewer should determine if there is a matrix effect. A matrix effect is indicated if the LCS data are within limits but the MS data exceeds the limits.

YES NO N/A

NOTE: No qualification of data is necessary on MS and MSD data alone. However, using informed professional judgement, the data reviewer may use MS and MSD resuts in conjunction with other QC criteria to determine the need for some qualificatios.

Note: The data reviewer should first try to determine to what extent the results of the MS and MSD affect the associated data. This determination should be made with regard to he MS and MSD sample itself, as welll as specific analytes for all samples associated with the MS and MSD.

Note: In those instances where it can be determned that the results of the MS and MSD affect only the sample spiked, limit qualification to this sample only. However, it may be determined through the MS and MSD results that a laboratory is having a systematic problem in the analysis of one or more analytes that affect all associated samples, and the reviewer must use professional judgement to qualify the data from all associated samples.

Note: The reviewer must use professional judgement to determine the need for qualification of non-spiked compounds.

ACTION: Follow criteria in Table 4 when professional judgement deems qualification of sample.

Table 4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	**Non-Detected Spiked Compounds**
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

YES NO N/A

6.0 Blank (CLP Form IV Equivalent)

6.1 Is the Method Blank Summary form present? [X] ___ ___

6.2 Frequency of Analysis: Has a method blank been analyzed for every 20 (or less) samples of similar matrix or concentration or each extraction batch? [X] ___ ___

6.3 Has a method blank been analyzed for each GC/MS system used ? [X] ___ ___

ACTION: If any blank data are missing, take action as specified above (section 3.2). If blank data is not available, reject (R) all associated positive data. However, using professional judgement, the data reviewer may substitute field blank data for missing method blank data.

6.4 Chromatography: review the blank raw data - chromatograms, quant reports or data system printouts.

Is the chromatographic performance (baseline stability) for each instrument acceptable for volatile organic compounds? [X] ___ ___

7.0 Contamination

NOTE: "Water blanks", "drill blanks" and "distilled water blanks" are validated like any other sample and are not used to qualify the data. Do not confuse them with the other QC blanks discussed below.

7.1 Do any method/instrument/reagent blanks have positive results for target analytes and/or TICs? When applied as described below, the contaminant concentration in these blanks are multiplied by the sample dilution factor and corrected for percent moisture where necessary.
[ ] X ___

YES NO N/A

7.2 Do any field/rinse blanks have positive volatile organic compound results? ___ [X] ___

ACTION: Prepare a list of the samples associated with each of the contaminated blanks. (Attach a separate sheet.)

NOTE: All field blank results associated to a particular group of samples (may exceed one per case or one per day) may be used to qualify data. Blanks may not be qualified because of contamination in another blank. Field blanks must be qualified forsurrogate, or calibration QC problems.

ACTION: Follow the directions in Table 5 below to qualify sample results due to contamination. Use the largest value from all the associated blanks.

Table 5. Volatile Organic Analysis Blank Contamination Criteria

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, Field, Trip, Instrument**	Detects	Not detected	No qualification
	< CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	> CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL and < blank contamination	Report the concentration for the sample with a U, or quanity the data as unusable R
		≥ CRQL and ≥ blank contamination	Use professional judgement
	= CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	Gross contam-ination	Detects	Qualify results as unusable R

* 2x the CRQL for methylene chloride, 2-butanone, and acetone

** Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

NOTE: If gross blank contamination exists(e.g., saturated peaks, "hump-o-grams," "junk" peaks), all affected positive compounds in the associated samples should be qualified as unusable "R", due to interference. Non-detected volatile organic target compounds do not require qualification unless the contamination is so high that it interferes with the analyses of non-detected compounds.

YES NO N/A

7.3 Are there field/rinse/equipment blanks associated with every sample? [ ] [x] ___

ACTION: For low level samples, note in data assessment that there is no associated field/rinse/equipment blank. Exception: samples taken from a drinking water tap do not have associated field blanks.

8.0 GC/MS Apparatus and Materials

8.1 Did the lab use the proper gas chromatographic column(s) for analysis of volatiles by Method 8260B? Check raw data, instrument logs or contact the lab to determine what type of column(s) was (were) used. [x] ___ ___

NOTE: For the analysis of volatiles, the method requires requires the use of 60 m. x 0.75 mm capillary column, coated with VOCOL(Supelco) or equivalent column. (see SW-846, page 8260B-7, section 4.9.2)

ACTION: If the specified column, or equivalent, was not used, document the effects in the Data Assessment. Use professional judgement to determine the acceptability of the data.

9.0 GC/MS Instrument Performance Check (CLP Form V Equivalent)

9.1 Are the GC/MS Instrument Performance Check forms present for Bromofluorobenzene (BFB), and do these forms list the associated samples with date/time analyzed? [x] ___ ___

9.2 Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift? [x] ___ ___

9.3 Has an instrument performance check solution (BFB)

YES NO N/A

been analyzed for every twelve hours of sample analysis per instrument?(see Table 4, SW-846, page 8260B-36) [x] ___ ___

ACTION: List date, time, instrument ID, and sample analyses for which no associated GC/MS GC/MS tuning data are available.

ACTION: If the laboratory/project officer cannot provide missing data, reject ("R") all data generated outside an acceptable twelve hour calibration interval.

ACTION: If mass assignment is in error, flag all associated sample data as unusable, "R".

9.4 Have the ion abundances been normalized to m/z 95? [x] ___ ___

9.5 Have the ion abundance criteria been met for each instrument used? [x] ___ ___

ACTION: List all data which do not meet ion abundance criteria (attach a separate sheet).

ACTION: If ion abundance criteria are not met, take action as specified in section 3.2.

9.6 Are there any transcription/calculation errors between mass lists and reported values? (Check at least two values but if errors are found, check more.) ___ [x] ___

9.7 Have the appropriate number of significant figures (two) been reported? [x] ___ ___

ACTION: If large errors exist, take action as specified in section 3.2.

9.8 Are the spectra of the mass calibration compounds acceptable. [x] ___ ___

ACTION: Use professional judgement to determine wheather associated data should be accepted, qualified, or rejected.

YES NO N/A

10.0 Target Analytes (CLP Form I Equivalent)

10.1 Are the Organic Analysis reporting forms present with required header information on each page, for each of the following:

a. Samples and/or fractions as appropriate [X] ___ ___

b. Matrix spikes and matrix spike duplicates [X] ___ ___

c. Blanks [X] ___ ___

d. Laboratory Control Samples [X] ___ ___

10.2 Are the reconstructed Ion Chromatograms, mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?

a. Samples and/or fractions as appropriate [X] ___ ___

b. Matrix spikes and matrix spike duplicates (Mass spectra not required) [X] ___ ___

c. Blanks [X] ___ ___

d. Laboratory Control Samples [X] ___ ___

ACTION: If any data are missing, take action specified in 3.2 above.

10.3 Is chromatographic performance acceptable with respect to:

Baseline stability? [X] ___ ___

	YES	NO	N/A
Resolution?	[X]	___	___
Peak shape?	[X]	___	___
Full-scale graph (attenuation)?	[X]	___	___

Other:_____

ACTION: Use professional judgement to determine the acceptability of the data.

10.4 Are the lab-generated standard mass spectra of identified volatile compounds present for each sample? [X] ___ ___

ACTION: If any mass spectra are missing, take action specified in 3.2 above. If the lab does not generate their own standard spectra, make a note in the Data Assessment. If spectra are missing, contact the lab.

10.5 Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration? [X] ___ ___

10.6 Are all ions present in the standard mass spectrum at a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? [X] ___ ___

10.7 Do the relative intensities of the characteristic ions in the sample agree within ± 30% of the corresponding relative intensities in the reference spectrum? [X] ___ ___

ACTION: Use professional judgement to determine acceptability of data. If it is determined that incorrect identifications were made, all such data should be rejected ("R"), flagged ("N") - Presumptive evidence of the presence of the compound) or changed to non detected ("U") at the calculated detection limit. In order to be

YES NO N/A

positively identified, the data must comply with the criteria listed in 9.6, 9.7, and 9.8.

ACTION: When sample carry-over is a possibility, professional judgement should be used to determine if instrument cross-contamination has affected any positive compound identification.

11.0 Tentatively Identified Compounds (TIC) (CLP Form I/TIC Equivalent)

11.1 If Tentatively Identified Compound were required for this project, are all Tentatively Identified Compound reporting forms present; and do listed TICs include scan number or retention time, estimated concentration and a qualifier? [ ] ___ x

NOTE: Add "N" qualifier to all TICs which have CAS number, if missing.

NOTE: Have the project officer/appropriate official check the project plan to determine if lab was required to identify non-target analytes (SW-846, page 8260B-23, Sect. 7.6.2).

11.2 Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:

a. Samples and/or fractions as appropriate [ ] ___ X

b. Blanks [ ] ___ X

ACTION: If any TIC data are missing, take action specified in 3.2 above.

ACTION: Add "JN" qualifier only to analytes identified by a CAS#.

NOTE: If TICs are present in the associated blanks take action as specified in section 3.2 above.

YES NO N/A

11.3 Are any priority pollutants listed as TIC compounds (i.e., an BNA compound listed as a VOA TIC)? [ ] ___ X

ACTION: 1. Flag with "R" any target compound listed as a TIC.

2. Make sure all rejected compounds are properly reported if they are target compounds.

11.4 Are all ions present in the reference mass spectrum with a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? [ ] ___ X

11.5 Do TIC and "best match" standard relative ion intensities agree within ± 20%? [ ] ___ X

ACTION: Use professional judgement to determine acceptability of TIC identifications. If it is determined that an incorrect identification was made, change the identification to "unknown" or to some less specific identification (example: "C3 substituted benzene") as appropriate. Also, when a compound is not found in any blank, but is a suspected artifact of a common laboratory contaminant, the result should be qualified as unusable, "R". (Common lab contaminants: CO_2(M/E 44), Siloxanes (M/E 73), Hexane, Aldol Condensation Products, Solvent Preservatives, and related byproducts).

12.0 Compound Quantitation and Reported Detection Limits

12.1 Are there any transcription/calculation errors in organic analysis reporting form results? Check at least two positive values. Verify that the correct internal standard, quantitation ion, and average initial RRF/CF were used to calculate organic analysis reporting form result. Were any errors found? [ ] X ___

NOTE: Structural isomers with similar mass spectra, but insufficient GC resolution (i.e. percent valley between the two peaks > 25%) should be

YES NO N/A

reported as isomeric pairs. The reviewer should check the raw data to ensure that all such isomers were included in the quantitation (i.e., add the areas of the two coeluting peaks to calculate the total concentration).

12.2 Are the method CRQL's adjusted to reflect sample dilutions and, for soils, sample moisture? [X] ___ ___

ACTION: If errors are large, take action as specified in section 3.2 above.

ACTION: When a sample is analyzed at more than one dilution, the lowest detection limits are used (unless a QC exceedance dictates the use of the higher detection limit from the diluted sample data). Replace concentrations that exceed the calibration range in the original analysis by crossing out the "E" and it's associated value on the original reporting form (if present) and substituting the data from the analysis of the diluted sample. Specify which organic analysis reporting form is to be used, then draw a red "X" across the entire page of all reporting forms that should not be used, including any in the summary package.

13.0 Standards Data (GC/MS)

13.1 Are the Reconstructed Ion Chromatograms, and data system printouts (Quant Reports) present for initial and continuing calibration? [X] ___ ___

ACTION: If any calibration standard data are missing, take action specified in section 3.2 above.

14.0 GC/MS Initial Calibration (CLP Form VI Equivalent)

YES NO N/A

14.1 Are the Initial Calibration reporting forms present and complete for the volatile fraction? [X] ___ ___

ACTION: If any calibration forms or standard raw data are missing, take action specified in section 3.2 above.

ACTION: If the percent relative standard deviation (% RSD) is > 20%, (8000C-39)qualify positive results for that analyte "J". When % RSD > 90%,. Qualify all positive results for that analyte "J" and all non-detects results for that analyte "R".

14.2 Are all average RRFs > 0.050? [X] ___ ___

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be ≥ the values in the following list. If individual RRF values reported are below the listed values document in the Data Assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with red pencil.

ACTION: For any target analyte with average RRF < 0.05, or for the requirements for the 5 compounds in 14.2 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

14.3 Are response factors stable over the concentration range of the calibration. [X] ___ ___

NOTE: (Method Requirement) For the following CCC compounds, the %RSD values must be ≤ 30.0%. If %RSD values reported are > 30.0% document in the Data Assessment.

YES NO N/A

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

ACTION: Circle all outliers with a red pencil.

ACTION: If the % RSD is > 20.0%, or > 30% for the 6 compounds in 14.3 above, qualify positive results for that analyte "J" and non-detects using professional judgement. When RSD > 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

NOTE: Analytes previously qualified "U" due to blank contamination are still considered as "hits" when qualifying for calibration criteria.

14.4 Was the % RSD determined using RRF or CF? [X] ___ ___

If no, what method was used to determine the linearity of the initial calibration? Document any effects to the case in the Data Assessment.

14.5 Are there any transcription/calculation errors in the reporting of RRF or % RSD? (Check at least two values but if errors are found, check more.) [ ] X ___

ACTION: Circle errors with a red pencil.

ACTION: If errors are large, take action as specified in section 3.2 above.

15.0 GC/MS Calibration Verification (CLP Form VII Equivalent)

YES NO N/A

15.1 Are the Calibration Verification reporting forms present and complete for all compounds of interest? [X] ___ ___

15.2 Has a calibration verification standard been analyzed for every twelve hours of sample analysis per instrument? [X] ___ ___

ACTION: List below all sample analyses that were not within twelve hours of a calibration verification analysis for each instrument used.

_____

ACTION: If any forms are missing or no calibration verification standard has been analyzed twelve hours prior to sample analysis, take action as specified in section 3.2 above. If calibration verification data are not available, flag all associated sample data as unusable ("R").

15.3 Was the % D determined from the calibration verification determined using RRF or CF? [X] ___ ___

If no, what method was used to determine the calibration verification? Document any effects to the case in the Data Assessment.

15.4 Do any volatile compounds have a % D (difference or drift) between the initial and continuing RRF or CF which exceeds 20% (SW-846, page 8260B-19, section 7.4.5.2). [ ] X ___

NOTE: (Method Requirement) For the following CCC compounds, the %D values must be ≤ 20.0%. If %D values reported are > 20.0% document in the Data Assessment.

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

YES NO N/A

ACTION: Circle all outliers with a red pencil.

ACTION: Qualify both positive results and non-detects for the outlier compound(s) as estimated, "J". When %D is above 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

15.5 Do any volatile compounds have a RRF < 0.05? [ ] X ___

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be ≥ the values in the following list for each calibration verification. If average RRF values reported are below the listed values document in the data assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with a red pencil.

ACTION: If RRF < 0.05, or < the the requirements for the 5 compounds is section 15.5 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

16.0 Internal Standards (CLP Form VIII Equivalent)

16.1 Are the internal standard (IS) areas on the internal standard reporting forms of every sample and blank within the upper and lower limits (-50% to + 100%) for each initial mid-point calibration (SW-846, 8260B-20, Sect. 7.4.7)? [X] ___ ___

YES NO N/A

ACTION: If errors are large or information is missing, take action as specified in section 3.2 above.

ACTION: List each outlying internal standard below.

Sample ID	IS #	Area Lower Limit	Area Upper Limit

(Attach additional sheets if necessary.)

ACTION: 1. If the internal standard area count is outside the upper or lower limit, flag with "J" all positive results quantitated with this internal standard.

2. Do not qualify non-detects when the associated IS are counts area > + 100%.

3. If the IS area is below the lower limit (< -50%), qualify all associated non-detects (U-values) "J".

4. If extremely low area counts are reported (< -25%) or if performance exhibits a major abrupt drop off, flag all associated non-detects as unusable "R" and positive results as estimated "J".

16.2 Are the retention times of all internal standards within 30 seconds of the associated initial mid-point calibration standard (SW-846, 8260B-20, Sect. 7.4.6)? [X] ___ ___

ACTION: Professional judgement should be used to qualify data if the retention times differ by more than 30 seconds.

YES NO N/A

17.0 Field Duplicates

17.1 Were any field duplicates submitted for volatile analysis? [X] ___ ___

ACTION: Compare the reported results for field duplicates and calculate the relative percent difference.

ACTION: Any gross variation between field duplicate results must be addressed in the Data Assessment. However, if large differences exist, take action specified in section 3.2 above.

Daliz Estades Santaliz

Licensed Chemist

To Whom It May Concern:

I, Daliz M. Estades Santaliz, in my capacity as Puerto Rico Certified Chemist, hereby certify the attached Analytical Results from Project Number PTL-07, Project Name GE Patillas, Puerto Rico, and Laboratory ID Numbers:

6766763
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6766768

Lcda. Daliz M. Estades Santaliz

ESTADO LIBRE ASOCIADO DE PUERTO RICO
Daliz M. Estades Santaliz
Lic. 4026
QUIMICO LICENCIADO
A 1392911

PO Box 727
Dorado, PR 00646-0727

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL07

Report Date: 9/5/2012 12:34
Submit Date: 8/23/2012 10:05

Analysis Name	Units	6766763 SW-01 Result	MDL	6766764 PW-01 Result	MDL	6766765 SW-02 Result	MDL
Acetone	ug/l	N.D.	6	N.D.	6	N.D.	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	N.D.	3	N.D.	3	N.D.	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	3 J	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5

Daisy M. Estrada

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL07

Report Date: 9/5/2012 12:34
Submit Date: 8/23/2012 10:05

4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

Analysis Name	Units	6766766 PW-02		6766767 SW-03		6766768 PW-03	
		Result	MDL	Result	MDL	Result	MDL
Acetone	ug/l	N.D.	6	N.D.	6	N.D.	6
Benzene	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
Bromobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromodichloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromoform	ug/l	N.D.	1	N.D.	1	N.D.	1
Bromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Butanone	ug/l	N.D.	3	N.D.	3	N.D.	3
n-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
sec-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
tert-Butylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Carbon Tetrachloride	ug/l	N.D.	1	N.D.	1	N.D.	1
Chlorobenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Chloroform	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Chloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
2-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
4-Chlorotoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	N.D.	2	N.D.	2
Dibromochloromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dibromoethane	ug/l	N.D.	1	N.D.	1	N.D.	1

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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SDG: PTL07

Report Date: 9/5/2012 12:34
Submit Date: 8/23/2012 10:05

Dibromomethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,4-Dichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Dichlorodifluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2-Dichloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
2,2-Dichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
cis-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
trans-1,3-Dichloropropene	ug/l	N.D.	1	N.D.	1	N.D.	1
Ethylbenzene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Hexachlorobutadiene	ug/l	N.D.	2	N.D.	2	N.D.	2
Isopropylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
p-Isopropyltoluene	ug/l	N.D.	1	N.D.	1	N.D.	1
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	N.D.	0.5	N.D.	0.5
4-Methyl-2-pentanone	ug/l	N.D.	3	N.D.	3	N.D.	3
Methylene Chloride	ug/l	N.D.	2	N.D.	2	N.D.	2
Naphthalene	ug/l	N.D.	1	N.D.	1	N.D.	1
n-Propylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Styrene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	N.D.	1	N.D.	1
Tetrachloroethene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Toluene	ug/l	N.D.	0.7	N.D.	0.7	N.D.	0.7
1,2,3-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trichlorobenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,1,1-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
1,1,2-Trichloroethane	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
Trichloroethene	ug/l	N.D.	1	N.D.	1	N.D.	1
Trichlorofluoromethane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,3-Trichloropropane	ug/l	N.D.	1	N.D.	1	N.D.	1
1,2,4-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
1,3,5-Trimethylbenzene	ug/l	N.D.	1	N.D.	1	N.D.	1
Vinyl Chloride	ug/l	N.D.	1	N.D.	1	N.D.	1
m+p-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8
o-Xylene	ug/l	N.D.	0.8	N.D.	0.8	N.D.	0.8

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

USEPA
Hazardous Waste Support Branch
Validating Volatile Organic Compounds
By Gas Chromatography/Mass Spectrometry
SW-846 Method 8260B

Prepared by: _____ Date: 12/8/06
George Karras, Chemist
Hazardous Waste Support Section

Prepared by: _____ Date: 12/8/06
Russell Arnone, Chemist
Hazardous Waste Support Section

Concurred by: _____ Date: 12/8/06
Linda Mauel, Chief
Hazardous Waste Support Section

Approved by: _____ Date: 12/11/06
Robert Runyon, Chief
Hazardous Waste Support Branch

Annual Review

Reviewed by: _____ Date: _____
Name

Reviewed by: _____ Date: _____
Name

Scope and Applicability

This SOP offers detailed guidance in evaluating laboratory data generated according to the USEPA SW-846, Method 8260B December 1996. The validation methods and actions discussed in this document are based on the requirements set forth in USEPA SW-846, Method 8260B and Method 8000C, Rev 3, March 2003; and "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," January, 2005. This document covers technical as well as method specific problems; however situations may arise where data limitations must be assessed based on the reviewer's own professional judgement.

Summary

To ensure a thorough evaluation of each result in a data case, the reviewer must complete the checklist within this SOP, answering specific questions while performing the prescribed "ACTIONS" in each section. Qualifiers (or flags) are applied to questionable or unusable results as instructed. The data qualifiers discussed in this document are defined on page 4.

The reviewer must prepare a detailed data assessment to be submitted along with the complete SOP checklist. The Data Assessment must list all data qualifications, reasons for qualifications, instances of missing data, and contract non-compliance.

DEFINITIONS

Acronyms

BNA - base neutral acid(another name for Semi Volatiles)
CLP - Contract Laboratory Program
CRQL - Contract Required Quantitation Limit
CF - calibration factor
%D - percent difference
DCB -decachlorobiphenyl
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenylethane
DDT - dichlorodiphenyltrichloroethane
DoC - Date of Collection
GC - gas chromatography
GC/ECD - gas chromatograph/electron capture detector
GC/MS - gas chromatograph/mass spectrometer
GPC - gel permeation chromatography
IS - internal standard
kg - kilogram
µg - microgram
MS - matrix spike
MSD - matrix spike duplicate
ℓ - liter
mℓ - milliliter
PCB - Polychlorinated biphenyl
PE - performance evaluation
PEM - Performance Evaluation Mixture
QC - quality control
RAS - Routine Analytical Services
RIC - reconstructed ion chromatogram
RPD - relative percent difference
RRF - relative response factor
RRF - average relative response factor (from initial calibration)
RRT - relative retention time
RSD - relative standard deviation
RT - retention time
RSCC - Regional Sample Control Center
SDG - sample delivery group
SMC - system monitoring compound
SOP - standard operating procedure
SOW - Statement of Work
SVOA - semivolatile organic acid
TCL - Target Compound List
TCLP - Toxicity Characteristics Leachate Procedure
TCX -tetrachloro-m-xylene
TIC - tentatively identified compound

TOPO - Task Order Project Officer
TPO - Technical Project Officer
VOA - Volatile organic
VTSR - Validated Time of Sample Receipt

Data Qualifiers

U -The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J -The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N -The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

JN -The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ -The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R -The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

LAB QUALIFIERS:

D - The positive value is the result of an analysis at a secondary dilution factor.

B - The analyte is present in the associated method blank as well as in the sample. This qualifier has a different meaning when validating inorganic data.

E - The concentration of this analyte exceeds the calibration range of the instrument.

A - Indicates a Tentatively Identified Compound (TIC) is a suspected adol-condensation product.

X,Y,Z- Laboratory defined flags. The data reviewer must change these qualifiers during validation so that the data user may understand their impact on the data.

YES NO N/A

I. PACKAGE COMPLETENESS AND DELIVERABLES

CASE NUMBER: PTL 07 LAB: Lancaster Laboratories

SITE NAME: GE Patillas - Puerto Rico

1.0 Data Completeness and Deliverables

1.1 Has all data been submitted in CLP deliverable format or CLP Forms Equivalent? [X] ___ ___

ACTION: If not, note the effect on review of the data in the Data Assessment narrative.

2.0 Cover Letter, SDG Narrative

2.1 Is a laboratory narrative, and/or cover letter signed release present? [X] ___ ___

2.2 Are case number and SDG number(s) contained in the narrative or cover letter? [X] ___ ___

ACTION: If not, note the effect on review of the data in the Data Assessment narrative.

II. VOLATILE ANALYSES

1.0 Traffic Reports and Laboratory Narrative

1.1 Are the Traffic Reports, and/or Chain of Custodies from the field samplers present for all samples sign release present? [X] ___ ___

ACTION: If no, contact the laboratory/sampling team for replacement of missing or illegible copies.

1.2 Is a sampling trip report present (if required)? [X] ___ ___

1.3 Sample Conditions/Problems

YES NO N/A

1.3.1 Do the Traffic Reports, Chain of Custodies, or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special notations affecting the quality of the data? x [ ] ___

ACTION: If all the VOA vials for a sample have air bubbles or the VOA vial analyzed had air bubbles, flag all positive results "J" and all non-detects "R".

ACTION: If any sample analyzed as a soil, other than TCLP, contains 50%-90% water, all data should be flagged as estimated ("J"). If a soil sample, other than TCLP, contains more than 90% water, flag all positive results "J" and all non-detects "R".

ACTION: If samples were not iced or if the ice was melted upon receipt at the laboratory and the temperature of the cooler was elevated (>10°C), flag all positive results "J" and all non-detects non"UJ".

2.0 Holding Times

2.1 Have any volatile holding times, determined from date of collection to date of analysis, been exceeded?

___ [X] ___

The maximum holding time for aqueous samples is 14 days.

The maximum holding time for soils non aqueous samples is 14 days.

NOTE: If unpreserved, aqueous samples maintained at 4°C for aromatic hydrocarbons analysis must be analyzed within 7 days. If preserved with HCL acid to a pH<2 and stored at 4°C,then aqueous samples must be analyzed within 14 days from time of collection. For non-aqueous samples for volatile components that are frozen (less than 7°C) or are properly cooled (4°C ± 2°C) and perserved with $NaHSO_4$, the maximum holding time is 14 days from sample collection. If

YES NO N/A

uncertain about preservation, contact the laboratory /sampling team to determine whether or not samples were preserved.

ACTION: Qualify sample results according to Table 1:

Table 1. Holding Time Actions for Trace Volatile Analysis

Matrix	Preserved	Criteria	Action	
			Detected Associated Compounds	Non-Detected Associated Compounds
Aqueous	No	≤7 days	No qualifications	
	No	> 7 days	J	R
	Yes	≤14 days	No qualifications	
	Yes	> 14 days	J	R
Non Aqueous	No	≤ 14 days	J	R
	Yes	≤ 14 days	No qualifications	
	Yes/No	> 14 days	J	R

3.0 Surrogate Recovery (CLP Form II Equivalent)

3.1 Have the volatile surrogate recoveries been listed on Surrogate Recovery forms for each of the following matrices:

a. Water [X] ___ ___

b. Soil [ ] x ___

3.2 If so, are all the samples listed on the appropriate Surrogate Recovery forms for each matrix:

a. Water [X] ___ ___

b. Soil [ ] x ___

ACTION: If large errors exist, deliverables are unavailable or information is missing, document the effect(s) in Data

YES NO N/A

Assessments and contact the laboratory/project officer/appropriate official for an explanation /resubmittal,make any necessary corrections and document effect in the Data Assessment.

3.3 Were the surrogate recovery limits followed per Table 2. If Table 2 criteria were not followed, the laboratory may use in-house performance criteria (per SW-846, Method 8000C, sectiom 9.7). Other compounds may be used as surrogates, depending upon the analysis requirements. [X] ___ ___

Table 2. Surrogate Spike Recovery Limits for Water and Soil/Sediments

DMC	Recovery Limits (%)Water	Recovery Limits Soil/Sediment
4-Bromofluorobenzene	~~80-120~~ 78-113	70-130
Dibromofluoromethane	~~80-120~~ 80-116	70-130
Toluene-d_8	~~80-120~~ 80-113	70-130
Dichloroethane-d_4	~~80-120~~ 77-113	70-130

Note: Use above table if laboratory did not provide in house recovery criteria.

Note: Other compounds may be used as surrogated depending upon the analysis requirements.

3.4 Were outliers marked correctly with an asterisk? [ ] ___ X

ACTION: Circle all outliers with a red pencil.

3.5 Were one or more volatile surrogate recoveries out of specification for any sample or method blank. Table 2. [ ] X ___

If yes, were samples reanalyzed? [ ] ___ X

Were method blanks reanalyzed? [ ] ___ X

YES NO N/A

ACTION: If all surrogate recoveries are > 10% but 1 or more compounds do not meet method specifications:

1. Flag all positive results as estimated ("J").
2. Flag all non-detects as estimated detection limits ("UJ") when recoveries are less than the lower acceptance limit.
3. If recoveries are greater than the upper acceptance limit, do not qualify non-detects, but qualify positive results as estimated "J".

If any surrogate has a recovery of < 10%:

1. Positive results are qualified with ("J").
2. Non-detects for that should be qualified as unusable ("R").

NOTE: Professional judgement should be used to qualify data that have method blank surrogate recoveries out of specification in both original and reanalyses. The basic concern is whether the blank problems represent an isolated problem with the blank alone or whether there is a fundamental problem with the analytical process. If one or more samples in the batch show acceptable surrogate recoveries, the reviewer may choose the blank problem to be an isolated occurrence.

3.6 Are there any transcription/calculation errors between raw data and reported data? [ ] X ___

ACTION: If large errors exist, take action as specified in section 3.2 above.

4.0 Laboratory Control Sample(Form III/Equivalent)

4.1 Is the LCS prepared, extracted, analyzed, and reported once for every 20 field samples of a similar matrix, per SDG. [X] ___ ___

YES NO N/A

Note: LCS consists of an aliquot of a clean (control) matrix similar to the sample matrix and of the same weight or volume.

ACTION: If any Laboratory Control Sample data are missing, call the lab for explanation /resubmittals. Make note in the data assessment.

4.2 Were the Laboratory Control Samples analyzed at the required frequency for each of the following matrices:

A.	Water	[X]	___	___
B.	Soil	[ ]	___	X
C.	Med Soil	[ ]	___	X

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

4.3 Have in house LCS recovery limits been developed (Method 8000C, Sect 9.7). [X] ___ ___

4.4 If in house limits are not developed, are LCS acceptance recovery limits between 70 - 130% (Method 8000c Sect 9.5)? [ ] ___ X

4.5 Were one or more of the volatile LCS recoveries outside the in house laboratory recovery criteria for spiked analytes? If in house limits are not present use 70 - 130% recovery limits.
[ ] X ___

YES NO N/A

Table 3. LCS Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	**Non-Detected Spiked Compounds**
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

5.0 Matrix Spikes(Form III or equivalent)

5.1 Are all data for matrix spike and matrix duplicate or matrix spike duplicate (MS/MD or MS/MSD) present and complete for each matrix? [ ] x ___

NOTE: The laboratory should use one matrix spike and a duplicate analysis of an unspiked field sample if target analytes are expected in the sample. If the sample is not expected to contain target analytes, a MS/MSD should be analyzed (SW-846, Method 8260B, Sect 8.4.2).

5.2 Have MS/MD or MS/MSD results been summarized on modified CLP Form III? [ ] x ___

ACTION: If any data are missing take action as specified in section 3.2 above.

5.3 Were matrix spikes analyzed at the required frequency for each of the following matrices? (One MS/MD, MS/MSD or laboratory replicate must be performed for every 20 samples

YES NO N/A

of similar matrix or concentration level. Laboratories analyzing one to ten samples per month are required to analyze at least one MS per month [page 8000C, section 9.5.])

a. Water [ ] x ___

b. Waste [ ] ___ x

c. Soil/Solid [ ] ___ x

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene. The concentration of the LCS should be determined as described SW-Method 8000C Section 9.5.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

5.4 Have in house MS recovery limits been developed (Method 8000C, Sect 9.7)for each matrix. [ ] ___ x

5.5 Were one or more of the volatile MS/MSD recoveries outside of the in-house laboratory recovery criteria for spiked analytes? If none are present, then use 70-130% recovery as per SW-846, 8000C, Sect. 9.5.4. [___ x

ACTION: Circle all outliers with a red pencil.

NOTE: If any individual % recovery in the MS (or MSD) falls outside the designated range for recovery the reviewer should determine if there is a matrix effect. A matrix effect is indicated if the LCS data are within limits but the MS data exceeds the limits.

YES NO N/A

NOTE: No qualification of data is necessary on MS and MSD data alone. However, using informed professional judgement, the data reviewer may use MS and MSD resuts in conjunction with other QC criteria to determine the need for some qualificatios.

Note: The data reviewer should first try to determine to what extent the results of the MS and MSD affect the associated data. This determination should be made with regard to he MS and MSD sample itself, as welll as specific analytes for all samples associated with the MS and MSD.

Note: In those instances where it can be determned that the results of the MS and MSD affect only the sample spiked, limit qualification to this sample only. However, it may be determined through the MS and MSD results that a laboratory is having a systematic problem in the analysis of one or more analytes that affect all associated samples, and the reviewer must use professional judgement to qualify the data from all associated samples.

Note: The reviewer must use professional judgement to determine the need for qualification of non-spiked compounds.

ACTION: Follow criteria in Table 4 when professional judgement deems qualification of sample.

Table 4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	**Non-Detected Spiked Compounds**
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

YES NO N/A

6.0 Blank (CLP Form IV Equivalent)

6.1 Is the Method Blank Summary form present? [X] ___ ___

6.2 Frequency of Analysis: Has a method blank been analyzed for every 20 (or less) samples of similar matrix or concentration or each extraction batch? [X] ___ ___

6.3 Has a method blank been analyzed for each GC/MS system used ? [X] ___ ___

ACTION: If any blank data are missing, take action as specified above (section 3.2). If blank data is not available, reject (R) all associated positive data. However, using professional judgement, the data reviewer may substitute field blank data for missing method blank data.

6.4 Chromatography: review the blank raw data - chromatograms, quant reports or data system printouts.

Is the chromatographic performance (baseline stability) for each instrument acceptable for volatile organic compounds? [X] ___ ___

7.0 Contamination

NOTE: "Water blanks", "drill blanks" and "distilled water blanks" are validated like any other sample and are not used to qualify the data. Do not confuse them with the other QC blanks discussed below.

7.1 Do any method/instrument/reagent blanks have positive results for target analytes and/or TICs? When applied as described below, the contaminant concentration in these blanks are multiplied by the sample dilution factor and corrected for percent moisture where necessary.
[ ] X ___

	YES	NO	N/A
7.2 Do any field/rinse blanks have positive volatile organic compound results?	___	[ ]	X

ACTION: Prepare a list of the samples associated with each of the contaminated blanks. (Attach a separate sheet.)

NOTE: All field blank results associated to a particular group of samples (may exceed one per case or one per day) may be used to qualify data. Blanks may not be qualified because of contamination in another blank. Field blanks must be qualified forsurrogate, or calibration QC problems.

ACTION: Follow the directions in Table 5 below to qualify sample results due to contamination. Use the largest value from all the associated blanks.

Table 5. Volatile Organic Analysis Blank Contamination Criteria

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, Field, Trip, Instrument**	Detects	Not detected	No qualification
	< CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	> CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL and < blank contamination	Report the concentration for the sample with a U, or quanity the data as unusable R
		≥ CRQL and ≥ blank contamination	Use professional judgement
	= CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	Gross contam-ination	Detects	Qualify results as unusable R

* 2x the CRQL for methylene chloride, 2-butanone, and acetone

** Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

NOTE: If gross blank contamination exists(e.g., saturated peaks, "hump-o-grams," "junk" peaks), all affected positive compounds in the associated samples should be qualified as unusable "R", due to interference. Non-detected volatile organic target compounds do not require qualification unless the contamination is so high that it interferes with the analyses of non-detected compounds.

YES NO N/A

7.3 Are there field/rinse/equipment blanks associated with every sample? [ ] X ___

ACTION: For low level samples, note in data assessment that there is no associated field/rinse/equipment blank. Exception: samples taken from a drinking water tap do not have associated field blanks.

8.0 GC/MS Apparatus and Materials

8.1 Did the lab use the proper gas chromatographic column(s) for analysis of volatiles by Method 8260B? Check raw data, instrument logs or contact the lab to determine what type of column(s) was (were) used. [X] ___ ___

NOTE: For the analysis of volatiles, the method requires requires the use of 60 m. x 0.75 mm capillary column, coated with VOCOL(Supelco) or equivalent column. (see SW-846, page 8260B-7, section 4.9.2)

ACTION: If the specified column, or equivalent, was not used, document the effects in the Data Assessment. Use professional judgement to determine the acceptability of the data.

9.0 GC/MS Instrument Performance Check (CLP Form V Equivalent)

9.1 Are the GC/MS Instrument Performance Check forms present for Bromofluorobenzene (BFB), and do these forms list the associated samples with date/time analyzed? [X] ___ ___

9.2 Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift? [X] ___ ___

9.3 Has an instrument performance check solution (BFB)

YES NO N/A

been analyzed for every twelve hours of sample analysis per instrument?(see Table 4, SW-846, page 8260B-36) [X] ___ ___

ACTION: List date, time, instrument ID, and sample analyses for which no associated GC/MS GC/MS tuning data are available.

ACTION: If the laboratory/project officer cannot provide missing data, reject ("R") all data generated outside an acceptable twelve hour calibration interval.

ACTION: If mass assignment is in error, flag all associated sample data as unusable, "R".

9.4 Have the ion abundances been normalized to m/z 95? [X] ___ ___

9.5 Have the ion abundance criteria been met for each instrument used? [X] ___ ___

ACTION: List all data which do not meet ion abundance criteria (attach a separate sheet).

ACTION: If ion abundance criteria are not met, take action as specified in section 3.2.

9.6 Are there any transcription/calculation errors between mass lists and reported values? (Check at least two values but if errors are found, check more.) ___ [X] ___

9.7 Have the appropriate number of significant figures (two) been reported? [X] ___ ___

ACTION: If large errors exist, take action as specified in section 3.2.

9.8 Are the spectra of the mass calibration compounds acceptable. [X] ___ ___

ACTION: Use professional judgement to determine wheather associated data should be accepted, qualified, or rejected.

YES NO N/A

10.0 Target Analytes (CLP Form I Equivalent)

10.1 Are the Organic Analysis reporting forms present with required header information on each page, for each of the following:

a. Samples and/or fractions as appropriate [X] ___ ___

b. Matrix spikes and matrix spike duplicates [X] ___ ___

c. Blanks [X] ___ ___

d. Laboratory Control Samples [X] ___ ___

10.2 Are the reconstructed Ion Chromatograms, mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?

a. Samples and/or fractions as appropriate [X] ___ ___

b. Matrix spikes and matrix spike duplicates (Mass spectra not required) [X] ___ ___

c. Blanks [X] ___ ___

d. Laboratory Control Samples [X] ___ ___

ACTION: If any data are missing, take action specified in 3.2 above.

10.3 Is chromatographic performance acceptable with respect to:

Baseline stability? [X] ___ ___

	YES	NO	N/A
Resolution?	[X]	___	___
Peak shape?	[X]	___	___
Full-scale graph (attenuation)?	[X]	___	___

Other:_____

ACTION: Use professional judgement to determine the acceptability of the data.

10.4 Are the lab-generated standard mass spectra of identified volatile compounds present for each sample? [X] ___ ___

ACTION: If any mass spectra are missing, take action specified in 3.2 above. If the lab does not generate their own standard spectra, make a note in the Data Assessment. If spectra are missing, contact the lab.

10.5 Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration? [X] ___ ___

10.6 Are all ions present in the standard mass spectrum at a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? [X] ___ ___

10.7 Do the relative intensities of the characteristic ions in the sample agree within ± 30% of the corresponding relative intensities in the reference spectrum? [X] ___ ___

ACTION: Use professional judgement to determine acceptability of data. If it is determined that incorrect identifications were made, all such data should be rejected ("R"), flagged ("N") - Presumptive evidence of the presence of the compound) or changed to non detected ("U") at the calculated detection limit. In order to be

YES NO N/A

positively identified, the data must comply with the criteria listed in 9.6, 9.7, and 9.8.

ACTION: When sample carry-over is a possibility, professional judgement should be used to determine if instrument cross-contamination has affected any positive compound identification.

11.0 Tentatively Identified Compounds (TIC) (CLP Form I/TIC Equivalent)

11.1 If Tentatively Identified Compound were required for this project, are all Tentatively Identified Compound reporting forms present; and do listed TICs include scan number or retention time, estimated concentration and a qualifier? [ ] ___ x

NOTE: Add "N" qualifier to all TICs which have CAS number, if missing.

NOTE: Have the project officer/appropriate official check the project plan to determine if lab was required to identify non-target analytes (SW-846, page 8260B-23, Sect. 7.6.2).

11.2 Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:

a. Samples and/or fractions as appropriate [ ] ___ X

b. Blanks [ ] ___ X

ACTION: If any TIC data are missing, take action specified in 3.2 above.

ACTION: Add "JN" qualifier only to analytes identified by a CAS#.

NOTE: If TICs are present in the associated blanks take action as specified in section 3.2 above.

YES NO N/A

11.3 Are any priority pollutants listed as TIC compounds (i.e., an BNA compound listed as a VOA TIC)? [ ] ___ X

ACTION: 1. Flag with "R" any target compound listed as a TIC.

2. Make sure all rejected compounds are properly reported if they are target compounds.

11.4 Are all ions present in the reference mass spectrum with a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? [ ] ___ X

11.5 Do TIC and "best match" standard relative ion intensities agree within ± 20%? [ ] ___ X

ACTION: Use professional judgement to determine acceptability of TIC identifications. If it is determined that an incorrect identification was made, change the identification to "unknown" or to some less specific identification (example: "C3 substituted benzene") as appropriate. Also, when a compound is not found in any blank, but is a suspected artifact of a common laboratory contaminant, the result should be qualified as unusable, "R". (Common lab contaminants: CO_2(M/E 44), Siloxanes (M/E 73), Hexane, Aldol Condensation Products, Solvent Preservatives, and related byproducts).

12.0 Compound Quantitation and Reported Detection Limits

12.1 Are there any transcription/calculation errors in organic analysis reporting form results? Check at least two positive values. Verify that the correct internal standard, quantitation ion, and average initial RRF/CF were used to calculate organic analysis reporting form result. Were any errors found? [ ] X ___

NOTE: Structural isomers with similar mass spectra, but insufficient GC resolution (i.e. percent valley between the two peaks > 25%) should be

YES NO N/A

reported as isomeric pairs. The reviewer should check the raw data to ensure that all such isomers were included in the quantitation (i.e., add the areas of the two coeluting peaks to calculate the total concentration).

12.2 Are the method CRQL's adjusted to reflect sample dilutions and, for soils, sample moisture? [X] ___ ___

ACTION: If errors are large, take action as specified in section 3.2 above.

ACTION: When a sample is analyzed at more than one dilution, the lowest detection limits are used (unless a QC exceedance dictates the use of the higher detection limit from the diluted sample data). Replace concentrations that exceed the calibration range in the original analysis by crossing out the "E" and it's associated value on the original reporting form (if present) and substituting the data from the analysis of the diluted sample. Specify which organic analysis reporting form is to be used, then draw a red "X" across the entire page of all reporting forms that should not be used, including any in the summary package.

13.0 Standards Data (GC/MS)

13.1 Are the Reconstructed Ion Chromatograms, and data system printouts (Quant Reports) present for initial and continuing calibration? [X] ___ ___

ACTION: If any calibration standard data are missing, take action specified in section 3.2 above.

14.0 GC/MS Initial Calibration (CLP Form VI Equivalent)

YES NO N/A

14.1 Are the Initial Calibration reporting forms present and complete for the volatile fraction? [X] ___ ___

ACTION: If any calibration forms or standard raw data are missing, take action specified in section 3.2 above.

ACTION: If the percent relative standard deviation (% RSD) is > 20%, (8000C-39)qualify positive results for that analyte "J". When % RSD > 90%,. Qualify all positive results for that analyte "J" and all non-detects results for that analyte "R".

14.2 Are all average RRFs > 0.050? [X] ___ ___

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be ≥ the values in the following list. If individual RRF values reported are below the listed values document in the Data Assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with red pencil.

ACTION: For any target analyte with average RRF < 0.05, or for the requirements for the 5 compounds in 14.2 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

14.3 Are response factors stable over the concentration range of the calibration. [X] ___ ___

NOTE: (Method Requirement) For the following CCC compounds, the %RSD values must be ≤ 30.0%. If %RSD values reported are > 30.0% document in the Data Assessment.

YES NO N/A

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

ACTION: Circle all outliers with a red pencil.

ACTION: If the % RSD is > 20.0%, or > 30% for the 6 compounds in 14.3 above, qualify positive results for that analyte "J" and non-detects using professional judgement. When RSD > 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

NOTE: Analytes previously qualified "U" due to blank contamination are still considered as "hits" when qualifying for calibration criteria.

14.4 Was the % RSD determined using RRF or CF? [X] ___ ___

If no, what method was used to determine the linearity of the initial calibration? Document any effects to the case in the Data Assessment.

14.5 Are there any transcription/calculation errors in the reporting of RRF or % RSD? (Check at least two values but if errors are found, check more.) [ ] X ___

ACTION: Circle errors with a red pencil.

ACTION: If errors are large, take action as specified in section 3.2 above.

15.0 GC/MS Calibration Verification (CLP Form VII Equivalent)

YES NO N/A

15.1 Are the Calibration Verification reporting forms present and complete for all compounds of interest? [X] ___ ___

15.2 Has a calibration verification standard been analyzed for every twelve hours of sample analysis per instrument? [X] ___ ___

ACTION: List below all sample analyses that were not within twelve hours of a calibration verification analysis for each instrument used.

_____

ACTION: If any forms are missing or no calibration verification standard has been analyzed twelve hours prior to sample analysis, take action as specified in section 3.2 above. If calibration verification data are not available, flag all associated sample data as unusable ("R").

15.3 Was the % D determined from the calibration verification determined using RRF or CF? [X] ___ ___

If no, what method was used to determine the calibration verification? Document any effects to the case in the Data Assessment.

15.4 Do any volatile compounds have a % D (difference or drift) between the initial and continuing RRF or CF which exceeds 20% (SW-846, page 8260B-19, section 7.4.5.2). [ ] X ___

NOTE: (Method Requirement) For the following CCC compounds, the %D values must be ≤ 20.0%. If %D values reported are > 20.0% document in the Data Assessment.

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

YES NO N/A

ACTION: Circle all outliers with a red pencil.

ACTION: Qualify both positive results and non-detects for the outlier compound(s) as estimated, "J". When %D is above 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

15.5 Do any volatile compounds have a RRF < 0.05? [ ] X ___

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be ≥ the values in the following list for each calibration verification. If average RRF values reported are below the listed values document in the data assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with a red pencil.

ACTION: If RRF < 0.05, or < the the requirements for the 5 compounds is section 15.5 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

16.0 Internal Standards (CLP Form VIII Equivalent)

16.1 Are the internal standard (IS) areas on the internal standard reporting forms of every sample and blank within the upper and lower limits (-50% to + 100%) for each initial mid-point calibration (SW-846, 8260B-20, Sect. 7.4.7)? [X] ___ ___

YES NO N/A

ACTION: If errors are large or information is missing, take action as specified in section 3.2 above.

ACTION: List each outlying internal standard below.

Sample ID	IS #	Area Lower Limit	Area Upper Limit

(Attach additional sheets if necessary.)

ACTION: 1. If the internal standard area count is outside the upper or lower limit, flag with "J" all positive results quantitated with this internal standard.

2. Do not qualify non-detects when the associated IS are counts area > + 100%.

3. If the IS area is below the lower limit (< -50%), qualify all associated non-detects (U-values) "J".

4. If extremely low area counts are reported (< -25%) or if performance exhibits a major abrupt drop off, flag all associated non-detects as unusable "R" and positive results as estimated "J".

16.2 Are the retention times of all internal standards within 30 seconds of the associated initial mid-point calibration standard (SW-846, 8260B-20, Sect. 7.4.6)? [X] ___ ___

ACTION: Professional judgement should be used to qualify data if the retention times differ by more than 30 seconds.

YES NO N/A

17.0 Field Duplicates

17.1 Were any field duplicates submitted for volatile analysis? [X] ___ ___

ACTION: Compare the reported results for field duplicates and calculate the relative percent difference.

ACTION: Any gross variation between field duplicate results must be addressed in the Data Assessment. However, if large differences exist, take action specified in section 3.2 above.

Ðaliz Ëstades Santalīz

Licensed Chemist

To Whom It May Concern:

I, Daliz M. Estades Santaliz, in my capacity as Puerto Rico Certified Chemist, hereby certify the attached Analytical Results from Project Number PTL-08, Project Name GE Patillas, Puerto Rico, and Laboratory ID Numbers:

6766769
6766770
6766771
6766772

Lcda. Daliz M. Estades Santaliz

PO Box 727
Dorado, PR 00646-0727

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL08

Report Date: 9/5/2012 12:35
Submit Date: 8/23/2012 10:05

Analysis Name	Units	6766771 Soil Cutting MW-23 Result	MDL	6766772 Soil Cutting MW-23 Result	MDL
Benzene	mg/l	n.a.	n.a.	N.D.	0.010
2-Butanone	mg/l	n.a.	n.a.	N.D.	0.060
Carbon Tetrachloride	mg/l	n.a.	n.a.	N.D.	0.020
Chlorobenzene	mg/l	n.a.	n.a.	N.D.	0.016
Chloroform	mg/l	n.a.	n.a.	N.D.	0.016
1,2-Dichloroethane	mg/l	n.a.	n.a.	N.D.	0.020
1,1-Dichloroethene	mg/l	n.a.	n.a.	N.D.	0.016
Tetrachloroethene	mg/l	n.a.	n.a.	N.D.	0.016
Trichloroethene	mg/l	n.a.	n.a.	N.D.	0.020
Vinyl Chloride	mg/l	n.a.	n.a.	N.D.	0.020
1,4-Dichlorobenzene	mg/l	N.D.	0.005	n.a.	n.a.
2,4-Dinitrotoluene	mg/l	N.D.	0.005	n.a.	n.a.
Hexachlorobenzene	mg/l	N.D.	0.005	n.a.	n.a.
Hexachlorobutadiene	mg/l	N.D.	0.005	n.a.	n.a.
Hexachloroethane	mg/l	N.D.	0.005	n.a.	n.a.
2-Methylphenol	mg/l	N.D.	0.005	n.a.	n.a.
4-Methylphenol	mg/l	N.D.	0.010	n.a.	n.a.
Nitrobenzene	mg/l	N.D.	0.005	n.a.	n.a.
Pentachlorophenol	mg/l	N.D.	0.015	n.a.	n.a.
Pyridine	mg/l	N.D.	0.010	n.a.	n.a.
2,4,5-Trichlorophenol	mg/l	N.D.	0.005	n.a.	n.a.
2,4,6-Trichlorophenol	mg/l	N.D.	0.005	n.a.	n.a.
Arsenic	mg/l	N.D.	0.0068	n.a.	n.a.
Barium	mg/l	0.122	0.00033	n.a.	n.a.
Cadmium	mg/l	0.00036 J	0.00036	n.a.	n.a.
Chromium	mg/l	0.0025 J	0.0011	n.a.	n.a.
Lead	mg/l	N.D.	0.0051	n.a.	n.a.
Selenium	mg/l	N.D.	0.0075	n.a.	n.a.
Silver	mg/l	0.0025 J	0.0012	n.a.	n.a.
Mercury	mg/l	N.D.	0.000070	n.a.	n.a.

Analysis Name	Units	6766769 TB-082112 Result	MDL	6766770 Water For Vault Result	MDL
Acetone	ug/l	N.D.	6	n.a.	n.a.
Benzene	ug/l	N.D.	0.5	n.a.	n.a.
Bromobenzene	ug/l	N.D.	1	n.a.	n.a.
Bromochloromethane	ug/l	N.D.	1	n.a.	n.a.
Bromodichloromethane	ug/l	N.D.	1	n.a.	n.a.
Bromoform	ug/l	N.D.	1	n.a.	n.a.

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL08

Report Date: 9/5/2012 12:35
Submit Date: 8/23/2012 10:05

Bromomethane	ug/l	N.D.	1	n.a.	n.a.
2-Butanone	ug/l	N.D.	3	n.a.	n.a.
n-Butylbenzene	ug/l	N.D.	1	n.a.	n.a.
sec-Butylbenzene	ug/l	N.D.	1	n.a.	n.a.
tert-Butylbenzene	ug/l	N.D.	1	n.a.	n.a.
Carbon Tetrachloride	ug/l	N.D.	1	n.a.	n.a.
Chlorobenzene	ug/l	N.D.	0.8	n.a.	n.a.
Chloroethane	ug/l	N.D.	1	n.a.	n.a.
Chloroform	ug/l	N.D.	0.8	n.a.	n.a.
Chloromethane	ug/l	N.D.	1	n.a.	n.a.
2-Chlorotoluene	ug/l	N.D.	1	n.a.	n.a.
4-Chlorotoluene	ug/l	N.D.	1	n.a.	n.a.
1,2-Dibromo-3-chloropropane	ug/l	N.D.	2	n.a.	n.a.
Dibromochloromethane	ug/l	N.D.	1	n.a.	n.a.
1,2-Dibromoethane	ug/l	N.D.	1	n.a.	n.a.
Dibromomethane	ug/l	N.D.	1	n.a.	n.a.
1,2-Dichlorobenzene	ug/l	N.D.	1	n.a.	n.a.
1,3-Dichlorobenzene	ug/l	N.D.	1	n.a.	n.a.
1,4-Dichlorobenzene	ug/l	N.D.	1	n.a.	n.a.
Dichlorodifluoromethane	ug/l	N.D.	1	n.a.	n.a.
1,1-Dichloroethane	ug/l	N.D.	1	n.a.	n.a.
1,2-Dichloroethane	ug/l	N.D.	1	n.a.	n.a.
1,1-Dichloroethene	ug/l	N.D.	0.8	n.a.	n.a.
cis-1,2-Dichloroethene	ug/l	N.D.	0.8	n.a.	n.a.
trans-1,2-Dichloroethene	ug/l	N.D.	0.8	n.a.	n.a.
1,2-Dichloropropane	ug/l	N.D.	1	n.a.	n.a.
1,3-Dichloropropane	ug/l	N.D.	1	n.a.	n.a.
2,2-Dichloropropane	ug/l	N.D.	1	n.a.	n.a.
1,1-Dichloropropene	ug/l	N.D.	1	n.a.	n.a.
cis-1,3-Dichloropropene	ug/l	N.D.	1	n.a.	n.a.
trans-1,3-Dichloropropene	ug/l	N.D.	1	n.a.	n.a.
Ethylbenzene	ug/l	N.D.	0.8	n.a.	n.a.
Hexachlorobutadiene	ug/l	N.D.	2	n.a.	n.a.
Isopropylbenzene	ug/l	N.D.	1	n.a.	n.a.
p-Isopropyltoluene	ug/l	N.D.	1	n.a.	n.a.
Methyl Tertiary Butyl Ether	ug/l	N.D.	0.5	n.a.	n.a.
4-Methyl-2-pentanone	ug/l	N.D.	3	n.a.	n.a.
Methylene Chloride	ug/l	N.D.	2	n.a.	n.a.
Naphthalene	ug/l	N.D.	1	n.a.	n.a.
n-Propylbenzene	ug/l	N.D.	1	n.a.	n.a.
Styrene	ug/l	N.D.	1	n.a.	n.a.
1,1,1,2-Tetrachloroethane	ug/l	N.D.	1	n.a.	n.a.
1,1,2,2-Tetrachloroethane	ug/l	N.D.	1	n.a.	n.a.
Tetrachloroethene	ug/l	N.D.	0.8	n.a.	n.a.
Toluene	ug/l	N.D.	0.7	n.a.	n.a.
1,2,3-Trichlorobenzene	ug/l	N.D.	1	n.a.	n.a.

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL08

Report Date: 9/5/2012 12:35
Submit Date: 8/23/2012 10:05

1,2,4-Trichlorobenzene	ug/l	N.D.	1	n.a.	n.a.
1,1,1-Trichloroethane	ug/l	N.D.	0.8	n.a.	n.a.
1,1,2-Trichloroethane	ug/l	N.D.	0.8	n.a.	n.a.
Trichloroethene	ug/l	N.D.	1	n.a.	n.a.
Trichlorofluoromethane	ug/l	N.D.	1	n.a.	n.a.
1,2,3-Trichloropropane	ug/l	N.D.	1	n.a.	n.a.
1,2,4-Trimethylbenzene	ug/l	N.D.	1	n.a.	n.a.
1,3,5-Trimethylbenzene	ug/l	N.D.	1	n.a.	n.a.
Vinyl Chloride	ug/l	N.D.	1	n.a.	n.a.
m+p-Xylene	ug/l	N.D.	0.8	n.a.	n.a.
o-Xylene	ug/l	N.D.	0.8	n.a.	n.a.
Acenaphthene	ug/l	n.a.	n.a.	N.D.	0.09
Acenaphthylene	ug/l	n.a.	n.a.	N.D.	0.09
Acetophenone	ug/l	n.a.	n.a.	N.D.	0.5
2-Acetylaminofluorene	ug/l	n.a.	n.a.	N.D.	2
4-Aminobiphenyl	ug/l	n.a.	n.a.	N.D.	0.5
Aniline	ug/l	n.a.	n.a.	N.D.	0.5
Anthracene	ug/l	n.a.	n.a.	N.D.	0.09
Benzo(a)anthracene	ug/l	n.a.	n.a.	N.D.	0.09
Benzo(a)pyrene	ug/l	n.a.	n.a.	N.D.	0.09
Benzo(b)fluoranthene	ug/l	n.a.	n.a.	N.D.	0.09
Benzo(g,h,i)perylene	ug/l	n.a.	n.a.	N.D.	0.09
Benzo(k)fluoranthene	ug/l	n.a.	n.a.	N.D.	0.09
Benzyl alcohol	ug/l	n.a.	n.a.	N.D.	5
4-Bromophenyl-phenylether	ug/l	n.a.	n.a.	N.D.	0.5
Butylbenzylphthalate	ug/l	n.a.	n.a.	N.D.	2
Di-n-butylphthalate	ug/l	n.a.	n.a.	N.D.	2
4-Chloro-3-methylphenol	ug/l	n.a.	n.a.	N.D.	0.5
4-Chloroaniline	ug/l	n.a.	n.a.	N.D.	0.5
Chlorobenzilate	ug/l	n.a.	n.a.	N.D.	3
bis(2-Chloroethoxy)methane	ug/l	n.a.	n.a.	N.D.	0.5
bis(2-Chloroethyl)ether	ug/l	n.a.	n.a.	N.D.	0.5
bis(2-Chloroisopropyl)ether	ug/l	n.a.	n.a.	N.D.	0.5
2-Chloronaphthalene	ug/l	n.a.	n.a.	N.D.	0.4
2-Chlorophenol	ug/l	n.a.	n.a.	N.D.	0.5
4-Chlorophenyl-phenylether	ug/l	n.a.	n.a.	N.D.	0.5
Chrysene	ug/l	n.a.	n.a.	N.D.	0.09
Diallate trans/cis	ug/l	n.a.	n.a.	N.D.	0.9
Dibenz(a,h)anthracene	ug/l	n.a.	n.a.	N.D.	0.09
Dibenzofuran	ug/l	n.a.	n.a.	N.D.	0.5
1,2-Dichlorobenzene	ug/l	n.a.	n.a.	N.D.	0.5
1,3-Dichlorobenzene	ug/l	n.a.	n.a.	N.D.	0.5
1,4-Dichlorobenzene	ug/l	n.a.	n.a.	N.D.	0.5
3,3'-Dichlorobenzidine	ug/l	n.a.	n.a.	N.D.	2
2,4-Dichlorophenol	ug/l	n.a.	n.a.	N.D.	0.5
2,6-Dichlorophenol	ug/l	n.a.	n.a.	N.D.	0.5

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
SDG: PTL08

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Diethylphthalate	ug/l	n.a.	n.a.	N.D.	2
Dimethoate	ug/l	n.a.	n.a.	N.D.	3
p-Dimethylaminoazobenzene	ug/l	n.a.	n.a.	N.D.	0.5
3,3'-Dimethylbenzidine	ug/l	n.a.	n.a.	N.D.	24
7,12-Dimethylbenz[a]anthracene	ug/l	n.a.	n.a.	N.D.	0.5
2,4-Dimethylphenol	ug/l	n.a.	n.a.	N.D.	0.5
Dimethylphthalate	ug/l	n.a.	n.a.	N.D.	2
4,6-Dinitro-2-methylphenol	ug/l	n.a.	n.a.	N.D.	5
1,3-Dinitrobenzene	ug/l	n.a.	n.a.	N.D.	2
2,4-Dinitrophenol	ug/l	n.a.	n.a.	N.D.	9
2,4-Dinitrotoluene	ug/l	n.a.	n.a.	N.D.	0.9
2,6-Dinitrotoluene	ug/l	n.a.	n.a.	N.D.	0.5
Ethyl methanesulfonate	ug/l	n.a.	n.a.	N.D.	0.5
bis(2-Ethylhexyl)phthalate	ug/l	n.a.	n.a.	4 J	2
Fluoranthene	ug/l	n.a.	n.a.	N.D.	0.09
Fluorene	ug/l	n.a.	n.a.	N.D.	0.09
Hexachlorobenzene	ug/l	n.a.	n.a.	N.D.	0.09
Hexachlorobutadiene	ug/l	n.a.	n.a.	N.D.	0.5
Hexachlorocyclopentadiene	ug/l	n.a.	n.a.	N.D.	5
Hexachloroethane	ug/l	n.a.	n.a.	N.D.	0.9
Hexachloropropene	ug/l	n.a.	n.a.	N.D.	2
Indeno(1,2,3-cd)pyrene	ug/l	n.a.	n.a.	N.D.	0.09
Isodrin	ug/l	n.a.	n.a.	N.D.	0.5
Isophorone	ug/l	n.a.	n.a.	N.D.	0.5
Isosafrole	ug/l	n.a.	n.a.	N.D.	2
Methapyrilene	ug/l	n.a.	n.a.	N.D.	14
Methyl methanesulfonate	ug/l	n.a.	n.a.	N.D.	0.9
3-Methylcholanthrene	ug/l	n.a.	n.a.	N.D.	0.5
2-Methylnaphthalene	ug/l	n.a.	n.a.	N.D.	0.09
2-Methylphenol	ug/l	n.a.	n.a.	N.D.	0.5
4-Methylphenol	ug/l	n.a.	n.a.	N.D.	0.5
Naphthalene	ug/l	n.a.	n.a.	N.D.	0.09
1,4-Naphthoquinone	ug/l	n.a.	n.a.	N.D.	9
1-Naphthylamine	ug/l	n.a.	n.a.	N.D.	5
2-Naphthylamine	ug/l	n.a.	n.a.	N.D.	5
5-Nitro-o-toluidine	ug/l	n.a.	n.a.	N.D.	0.5
2-Nitroaniline	ug/l	n.a.	n.a.	N.D.	0.5
3-Nitroaniline	ug/l	n.a.	n.a.	N.D.	0.5
4-Nitroaniline	ug/l	n.a.	n.a.	N.D.	0.5
Nitrobenzene	ug/l	n.a.	n.a.	N.D.	0.5
2-Nitrophenol	ug/l	n.a.	n.a.	N.D.	0.5
4-Nitrophenol	ug/l	n.a.	n.a.	N.D.	9
4-Nitroquinoline-1-oxide	ug/l	n.a.	n.a.	N.D.	19
N-Nitroso-di-n-propylamine	ug/l	n.a.	n.a.	N.D.	0.5
N-Nitrosodi-n-butylamine	ug/l	n.a.	n.a.	N.D.	2
N-Nitrosodiethylamine	ug/l	n.a.	n.a.	N.D.	0.5

MWH Americas, Inc.
Project: GE Patillas Puerto Rico
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N-Nitrosodimethylamine	ug/l	n.a.	n.a.	N.D.	2
N-Nitrosodiphenylamine	ug/l	n.a.	n.a.	N.D.	0.5
N-Nitrosomethylethylamine	ug/l	n.a.	n.a.	N.D.	2
N-Nitrosomorpholine	ug/l	n.a.	n.a.	N.D.	2
N-Nitrosopiperidine	ug/l	n.a.	n.a.	N.D.	0.5
N-Nitrosopyrrolidine	ug/l	n.a.	n.a.	N.D.	0.5
Di-n-octylphthalate	ug/l	n.a.	n.a.	N.D.	2
Pentachlorobenzene	ug/l	n.a.	n.a.	N.D.	0.5
Pentachloronitrobenzene	ug/l	n.a.	n.a.	N.D.	2
Pentachlorophenol	ug/l	n.a.	n.a.	N.D.	0.9
Phenacetin	ug/l	n.a.	n.a.	N.D.	0.5
Phenanthrene	ug/l	n.a.	n.a.	N.D.	0.09
Phenol	ug/l	n.a.	n.a.	N.D.	0.5
1,4-Phenylenediamine	ug/l	n.a.	n.a.	N.D.	71
2-Picoline	ug/l	n.a.	n.a.	N.D.	2
Pronamide	ug/l	n.a.	n.a.	N.D.	0.5
Pyrene	ug/l	n.a.	n.a.	N.D.	0.09
Pyridine	ug/l	n.a.	n.a.	N.D.	2
Safrole	ug/l	n.a.	n.a.	N.D.	2
1,2,4,5-Tetrachlorobenzene	ug/l	n.a.	n.a.	N.D.	0.5
2,3,4,6-Tetrachlorophenol	ug/l	n.a.	n.a.	N.D.	0.5
Tetraethyldithiopyrophosphate	ug/l	n.a.	n.a.	N.D.	0.9
Thionazin	ug/l	n.a.	n.a.	N.D.	2
o-Toluidine	ug/l	n.a.	n.a.	N.D.	0.5
1,2,4-Trichlorobenzene	ug/l	n.a.	n.a.	N.D.	0.5
2,4,5-Trichlorophenol	ug/l	n.a.	n.a.	N.D.	0.5
2,4,6-Trichlorophenol	ug/l	n.a.	n.a.	N.D.	0.5
O,O,O-Triethylphosphorothioate	ug/l	n.a.	n.a.	N.D.	2
1,3,5-Trinitrobenzene	ug/l	n.a.	n.a.	N.D.	5
Arsenic	mg/l	n.a.	n.a.	N.D.	0.0068
Barium	mg/l	n.a.	n.a.	0.135	0.00033
Cadmium	mg/l	n.a.	n.a.	0.0021 J	0.00036
Chromium	mg/l	n.a.	n.a.	0.0080 J	0.0011
Lead	mg/l	n.a.	n.a.	0.0112 J	0.0051
Selenium	mg/l	n.a.	n.a.	N.D.	0.0075
Silver	mg/l	n.a.	n.a.	0.0037 J	0.0012
Mercury	mg/l	n.a.	n.a.	N.D.	0.000070

Eurofins Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

USEPA
Hazardous Waste Support Branch
Validating Volatile Organic Compounds
By Gas Chromatography/Mass Spectrometry
SW-846 Method 8260B

Prepared by: _____ Date: 12/8/06
George Karras, Chemist
Hazardous Waste Support Section

Prepared by: _____ Date: 12/8/06
Russell Arnone, Chemist
Hazardous Waste Support Section

Concurred by: _____ Date: 12/8/06
Linda Mauel, Chief
Hazardous Waste Support Section

Approved by: _____ Date: 12/11/06
Robert Runyon, Chief
Hazardous Waste Support Branch

Annual Review

Reviewed by: _____ Date: _____
Name

Reviewed by: _____ Date: _____
Name

Scope and Applicability

This SOP offers detailed guidance in evaluating laboratory data generated according to the USEPA SW-846, Method 8260B December 1996. The validation methods and actions discussed in this document are based on the requirements set forth in USEPA SW-846, Method 8260B and Method 8000C, Rev 3, March 2003; and "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," January, 2005. This document covers technical as well as method specific problems; however situations may arise where data limitations must be assessed based on the reviewer's own professional judgement.

Summary

To ensure a thorough evaluation of each result in a data case, the reviewer must complete the checklist within this SOP, answering specific questions while performing the prescribed "ACTIONS" in each section. Qualifiers (or flags) are applied to questionable or unusable results as instructed. The data qualifiers discussed in this document are defined on page 4.

The reviewer must prepare a detailed data assessment to be submitted along with the complete SOP checklist. The Data Assessment must list all data qualifications, reasons for qualifications, instances of missing data, and contract non-compliance.

DEFINITIONS

Acronyms

BNA - base neutral acid(another name for Semi Volatiles)
CLP - Contract Laboratory Program
CRQL - Contract Required Quantitation Limit
CF - calibration factor
%D - percent difference
DCB -decachlorobiphenyl
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenylethane
DDT - dichlorodiphenyltrichloroethane
DoC - Date of Collection
GC - gas chromatography
GC/ECD - gas chromatograph/electron capture detector
GC/MS - gas chromatograph/mass spectrometer
GPC - gel permeation chromatography
IS - internal standard
kg - kilogram
µg - microgram
MS - matrix spike
MSD - matrix spike duplicate
ℓ - liter
mℓ - milliliter
PCB - Polychlorinated biphenyl
PE - performance evaluation
PEM - Performance Evaluation Mixture
QC - quality control
RAS - Routine Analytical Services
RIC - reconstructed ion chromatogram
RPD - relative percent difference
RRF - relative response factor
RRF - average relative response factor (from initial calibration)
RRT - relative retention time
RSD - relative standard deviation
RT - retention time
RSCC - Regional Sample Control Center
SDG - sample delivery group
SMC - system monitoring compound
SOP - standard operating procedure
SOW - Statement of Work
SVOA - semivolatile organic acid
TCL - Target Compound List
TCLP - Toxicity Characteristics Leachate Procedure
TCX -tetrachloro-m-xylene
TIC - tentatively identified compound

TOPO - Task Order Project Officer
TPO - Technical Project Officer
VOA - Volatile organic
VTSR - Validated Time of Sample Receipt

Data Qualifiers

U -The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J -The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N -The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."

JN -The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

UJ -The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R -The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

LAB QUALIFIERS:

D - The positive value is the result of an analysis at a secondary dilution factor.

B - The analyte is present in the associated method blank as well as in the sample. This qualifier has a different meaning when validating inorganic data.

E - The concentration of this analyte exceeds the calibration range of the instrument.

A - Indicates a Tentatively Identified Compound (TIC) is a suspected adol-condensation product.

X,Y,Z- Laboratory defined flags. The data reviewer must change these qualifiers during validation so that the data user may understand their impact on the data.

YES NO N/A

I. PACKAGE COMPLETENESS AND DELIVERABLES

CASE NUMBER: PTL - 08 LAB: Lancaster Laboratories

SITE NAME: GE Patillas - Puerto Rico

1.0 Data Completeness and Deliverables

1.1 Has all data been submitted in CLP deliverable format or CLP Forms Equivalent? [X] ___ ___

ACTION: If not, note the effect on review of the data in the Data Assessment narrative.

2.0 Cover Letter, SDG Narrative

2.1 Is a laboratory narrative, and/or cover letter signed release present? [X] ___ ___

2.2 Are case number and SDG number(s) contained in the narrative or cover letter? [X] ___ ___

ACTION: If not, note the effect on review of the data in the Data Assessment narrative.

II. VOLATILE ANALYSES

1.0 Traffic Reports and Laboratory Narrative

1.1 Are the Traffic Reports, and/or Chain of Custodies from the field samplers present for all samples sign release present? [X] ___ ___

ACTION: If no, contact the laboratory/sampling team for replacement of missing or illegible copies.

1.2 Is a sampling trip report present (if required)? [X] ___ ___

1.3 Sample Conditions/Problems

YES NO N/A

1.3.1 Do the Traffic Reports, Chain of Custodies, or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special notations affecting the quality of the data? X [ ] ___

ACTION: If all the VOA vials for a sample have air bubbles or the VOA vial analyzed had air bubbles, flag all positive results "J" and all non-detects "R".

ACTION: If any sample analyzed as a soil, other than TCLP, contains 50%-90% water, all data should be flagged as estimated ("J"). If a soil sample, other than TCLP, contains more than 90% water, flag all positive results "J" and all non-detects "R".

ACTION: If samples were not iced or if the ice was melted upon receipt at the laboratory and the temperature of the cooler was elevated (>10°C), flag all positive results "J" and all non-detects non"UJ".

2.0 Holding Times

2.1 Have any volatile holding times, determined from date of collection to date of analysis, been exceeded?

___ [X] ___

The maximum holding time for aqueous samples is 14 days.

The maximum holding time for soils non aqueous samples is 14 days.

NOTE: If unpreserved, aqueous samples maintained at 4°C for aromatic hydrocarbons analysis must be analyzed within 7 days. If preserved with HCL acid to a pH<2 and stored at 4°C,then aqueous samples must be analyzed within 14 days from time of collection. For non-aqueous samples for volatile components that are frozen (less than 7°C) or are properly cooled (4°C ± 2°C) and perserved with $NaHSO_4$, the maximum holding time is 14 days from sample collection. If

YES NO N/A

uncertain about preservation, contact the laboratory /sampling team to determine whether or not samples were preserved.

ACTION: Qualify sample results according to Table 1:

Table 1. Holding Time Actions for Trace Volatile Analysis

Matrix	Preserved	Criteria	Action	
			Detected Associated Compounds	Non-Detected Associated Compounds
Aqueous	No	≤7 days	No qualifications	
	No	> 7 days	J	R
	Yes	≤14 days	No qualifications	
	Yes	> 14 days	J	R
Non Aqueous	No	≤ 14 days	J	R
	Yes	≤ 14 days	No qualifications	
	Yes/No	> 14 days	J	R

3.0 Surrogate Recovery (CLP Form II Equivalent)

3.1 Have the volatile surrogate recoveries been listed on Surrogate Recovery forms for each of the following matrices:

a. Water [X] ___ ___

b. Soil [X] ___ ___

3.2 If so, are all the samples listed on the appropriate Surrogate Recovery forms for each matrix:

a. Water [X] ___ ___

b. Soil [X] ___ ___

ACTION: If large errors exist, deliverables are unavailable or information is missing, document the effect(s) in Data

YES NO N/A

Assessments and contact the laboratory/project officer/appropriate official for an explanation /resubmittal,make any necessary corrections and document effect in the Data Assessment.

3.3 Were the surrogate recovery limits followed per Table 2. If Table 2 criteria were not followed, the laboratory may use in-house performance criteria (per SW-846, Method 8000C, sectiom 9.7). Other compounds may be used as surrogates, depending upon the analysis requirements. [X] ___ ___

Table 2. Surrogate Spike Recovery Limits for Water and Soil/Sediments

DMC	Recovery Limits (%)Water	Recovery Limits Soil/Sediment
4-Bromofluorobenzene	~~80-120~~ 78-113	70-130
Dibromofluoromethane	~~80-120~~ 80-116	70-130
Toluene-d_8	~~80-120~~ 80-113	70-130
Dichloroethane-d_4	~~80-120~~ 77-113	70-130

Note: Use above table if laboratory did not provide in house recovery criteria.

Note: Other compounds may be used as surrogated depending upon the analysis requirements.

3.4 Were outliers marked correctly with an asterisk? [X] ___ ___

ACTION: Circle all outliers with a red pencil.

3.5 Were one or more volatile surrogate recoveries out of specification for any sample or method blank. Table 2. [X] ___ ___

If yes, were samples reanalyzed? [ ] x ___

Were method blanks reanalyzed? [ ] x ___

YES NO N/A

ACTION: If all surrogate recoveries are > 10% but 1 or more compounds do not meet method specifications:

1. Flag all positive results as estimated ("J").
2. Flag all non-detects as estimated detection limits ("UJ") when recoveries are less than the lower acceptance limit.
3. If recoveries are greater than the upper acceptance limit, do not qualify non-detects, but qualify positive results as estimated "J".

If any surrogate has a recovery of < 10%:

1. Positive results are qualified with ("J").
2. Non-detects for that should be qualified as unusable ("R").

NOTE: Professional judgement should be used to qualify data that have method blank surrogate recoveries out of specification in both original and reanalyses. The basic concern is whether the blank problems represent an isolated problem with the blank alone or whether there is a fundamental problem with the analytical process. If one or more samples in the batch show acceptable surrogate recoveries, the reviewer may choose the blank problem to be an isolated occurrence.

3.6 Are there any transcription/calculation errors between raw data and reported data? [ ] X ___

ACTION: If large errors exist, take action as specified in section 3.2 above.

4.0 Laboratory Control Sample(Form III/Equivalent)

4.1 Is the LCS prepared, extracted, analyzed, and reported once for every 20 field samples of a similar matrix, per SDG. [X] ___ ___

YES NO N/A

Note: LCS consists of an aliquot of a clean (control) matrix similar to the sample matrix and of the same weight or volume.

ACTION: If any Laboratory Control Sample data are missing, call the lab for explanation /resubmittals. Make note in the data assessment.

4.2 Were the Laboratory Control Samples analyzed at the required frequency for each of the following matrices:

A.	Water	[x]	___	___
B.	Soil	[x]	___	___
C.	Med Soil	[ ]	___	x

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

4.3 Have in house LCS recovery limits been developed (Method 8000C, Sect 9.7). [x] ___ ___

4.4 If in house limits are not developed, are LCS acceptance recovery limits between 70 - 130% (Method 8000c Sect 9.5)? [ ] ___ x

4.5 Were one or more of the volatile LCS recoveries outside the in house laboratory recovery criteria for spiked analytes? If in house limits are not present use 70 - 130% recovery limits. [x] ___ ___

YES NO N/A

Table 3. LCS Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	**Non-Detected Spiked Compounds**
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

5.0 Matrix Spikes(Form III or equivalent)

5.1 Are all data for matrix spike and matrix duplicate or matrix spike duplicate (MS/MD or MS/MSD) present and complete for each matrix? [X] ___ ___

NOTE: The laboratory should use one matrix spike and a duplicate analysis of an unspiked field sample if target analytes are expected in the sample. If the sample is not expected to contain target analytes, a MS/MSD should be analyzed (SW-846, Method 8260B, Sect 8.4.2).

5.2 Have MS/MD or MS/MSD results been summarized on modified CLP Form III? [X] ___ ___

ACTION: If any data are missing take action as specified in section 3.2 above.

5.3 Were matrix spikes analyzed at the required frequency for each of the following matrices? (One MS/MD, MS/MSD or laboratory replicate must be performed for every 20 samples

YES NO N/A

of similar matrix or concentration level. Laboratories analyzing one to ten samples per month are required to analyze at least one MS per month [page 8000C, section 9.5.])

a. Water [x] ___ ___

b. Waste [ ] ___ x

c. Soil/Solid [ ] ___ x

Note: The LCS is spiked with the same analytes at the same concentrations as the matrix spike (SW-846 8000C, Section 9.5). If different make note in data assessment. Matrix/LCS spiking standards should be prepared from volatile organic compounds which are representative of the compounds being investigating. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene. The concentration of the LCS should be determined as described SW-Method 8000C Section 9.5.

ACTION: If any MS/MD, MS/MSD or replicate data are missing, take the action specified in 3.2 above.

5.4 Have in house MS recovery limits been developed (Method 8000C, Sect 9.7)for each matrix. [x] ___ ___

5.5 Were one or more of the volatile MS/MSD recoveries outside of the in-house laboratory recovery criteria for spiked analytes? If none are present, then use 70-130% recovery as per SW-846, 8000C, Sect. 9.5.4. [x ___ ___

ACTION: Circle all outliers with a red pencil.

NOTE: If any individual % recovery in the MS (or MSD) falls outside the designated range for recovery the reviewer should determine if there is a matrix effect. A matrix effect is indicated if the LCS data are within limits but the MS data exceeds the limits.

YES NO N/A

NOTE: No qualification of data is necessary on MS and MSD data alone. However, using informed professional judgement, the data reviewer may use MS and MSD resuts in conjunction with other QC criteria to determine the need for some qualificatios.

Note: The data reviewer should first try to determine to what extent the results of the MS and MSD affect the associated data. This determination should be made with regard to he MS and MSD sample itself, as welll as specific analytes for all samples associated with the MS and MSD.

Note: In those instances where it can be determned that the results of the MS and MSD affect only the sample spiked, limit qualification to this sample only. However, it may be determined through the MS and MSD results that a laboratory is having a systematic problem in the analysis of one or more analytes that affect all associated samples, and the reviewer must use professional judgement to qualify the data from all associated samples.

Note: The reviewer must use professional judgement to determine the need for qualification of non-spiked compounds.

ACTION: Follow criteria in Table 4 when professional judgement deems qualification of sample.

Table 4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Actions for Volatile Analysis

Criteria	Action	
	Detected Spiked Compounds	**Non-Detected Spiked Compounds**
%R > Upper Acceptance Limit	J	No Qualifiers
%R < Lower Acceptance Limit	J	UJ
Lower Acceptance Limit ≤ %R	No Qualifications	

YES NO N/A

6.0 Blank (CLP Form IV Equivalent)

6.1 Is the Method Blank Summary form present? [X] ___ ___

6.2 Frequency of Analysis: Has a method blank been analyzed for every 20 (or less) samples of similar matrix or concentration or each extraction batch? [X] ___ ___

6.3 Has a method blank been analyzed for each GC/MS system used ? [X] ___ ___

ACTION: If any blank data are missing, take action as specified above (section 3.2). If blank data is not available, reject (R) all associated positive data. However, using professional judgement, the data reviewer may substitute field blank data for missing method blank data.

6.4 Chromatography: review the blank raw data - chromatograms, quant reports or data system printouts.

Is the chromatographic performance (baseline stability) for each instrument acceptable for volatile organic compounds? [X] ___ ___

7.0 Contamination

NOTE: "Water blanks", "drill blanks" and "distilled water blanks" are validated like any other sample and are not used to qualify the data. Do not confuse them with the other QC blanks discussed below.

7.1 Do any method/instrument/reagent blanks have positive results for target analytes and/or TICs? When applied as described below, the contaminant concentration in these blanks are multiplied by the sample dilution factor and corrected for percent moisture where necessary.
[ ] X ___

YES NO N/A

7.2 Do any field/rinse blanks have positive volatile organic compound results? ___ [X] ___

ACTION: Prepare a list of the samples associated with each of the contaminated blanks. (Attach a separate sheet.)

NOTE: All field blank results associated to a particular group of samples (may exceed one per case or one per day) may be used to qualify data. Blanks may not be qualified because of contamination in another blank. Field blanks must be qualified forsurrogate, or calibration QC problems.

ACTION: Follow the directions in Table 5 below to qualify sample results due to contamination. Use the largest value from all the associated blanks.

Table 5. Volatile Organic Analysis Blank Contamination Criteria

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, Field, Trip, Instrument**	Detects	Not detected	No qualification
	< CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	> CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL and < blank contamination	Report the concentration for the sample with a U, or quanity the data as unusable R
		≥ CRQL and ≥ blank contamination	Use professional judgement
	= CRQL*	< CRQL	Report CRQL value with a U
		≥ CRQL	Use professional judgement
	Gross contam-ination	Detects	Qualify results as unusable R

* 2x the CRQL for methylene chloride, 2-butanone, and acetone

** Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

NOTE: If gross blank contamination exists(e.g., saturated peaks, "hump-o-grams," "junk" peaks), all affected positive compounds in the associated samples should be qualified as unusable "R", due to interference. Non-detected volatile organic target compounds do not require qualification unless the contamination is so high that it interferes with the analyses of non-detected compounds.

YES NO N/A

7.3 Are there field/rinse/equipment blanks associated with every sample? [ ] X ___

ACTION: For low level samples, note in data assessment that there is no associated field/rinse/equipment blank. Exception: samples taken from a drinking water tap do not have associated field blanks.

8.0 GC/MS Apparatus and Materials

8.1 Did the lab use the proper gas chromatographic column(s) for analysis of volatiles by Method 8260B? Check raw data, instrument logs or contact the lab to determine what type of column(s) was (were) used. [X] ___ ___

NOTE: For the analysis of volatiles, the method requires requires the use of 60 m. x 0.75 mm capillary column, coated with VOCOL(Supelco) or equivalent column. (see SW-846, page 8260B-7, section 4.9.2)

ACTION: If the specified column, or equivalent, was not used, document the effects in the Data Assessment. Use professional judgement to determine the acceptability of the data.

9.0 GC/MS Instrument Performance Check (CLP Form V Equivalent)

9.1 Are the GC/MS Instrument Performance Check forms present for Bromofluorobenzene (BFB), and do these forms list the associated samples with date/time analyzed? [X] ___ ___

9.2 Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift? [X] ___ ___

9.3 Has an instrument performance check solution (BFB)

YES NO N/A

been analyzed for every twelve hours of sample analysis per instrument?(see Table 4, SW-846, page 8260B-36) [X] ___ ___

ACTION: List date, time, instrument ID, and sample analyses for which no associated GC/MS GC/MS tuning data are available.

ACTION: If the laboratory/project officer cannot provide missing data, reject ("R") all data generated outside an acceptable twelve hour calibration interval.

ACTION: If mass assignment is in error, flag all associated sample data as unusable, "R".

9.4 Have the ion abundances been normalized to m/z 95? [X] ___ ___

9.5 Have the ion abundance criteria been met for each instrument used? [X] ___ ___

ACTION: List all data which do not meet ion abundance criteria (attach a separate sheet).

ACTION: If ion abundance criteria are not met, take action as specified in section 3.2.

9.6 Are there any transcription/calculation errors between mass lists and reported values? (Check at least two values but if errors are found, check more.) ___ [X] ___

9.7 Have the appropriate number of significant figures (two) been reported? [X] ___ ___

ACTION: If large errors exist, take action as specified in section 3.2.

9.8 Are the spectra of the mass calibration compounds acceptable. [X] ___ ___

ACTION: Use professional judgement to determine wheather associated data should be accepted, qualified, or rejected.

YES NO N/A

10.0 Target Analytes (CLP Form I Equivalent)

10.1 Are the Organic Analysis reporting forms present with required header information on each page, for each of the following:

a. Samples and/or fractions as appropriate [X] ___ ___

b. Matrix spikes and matrix spike duplicates [X] ___ ___

c. Blanks [X] ___ ___

d. Laboratory Control Samples [X] ___ ___

10.2 Are the reconstructed Ion Chromatograms, mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?

a. Samples and/or fractions as appropriate [X] ___ ___

b. Matrix spikes and matrix spike duplicates (Mass spectra not required) [X] ___ ___

c. Blanks [X] ___ ___

d. Laboratory Control Samples [X] ___ ___

ACTION: If any data are missing, take action specified in 3.2 above.

10.3 Is chromatographic performance acceptable with respect to:

Baseline stability? [X] ___ ___

	YES	NO	N/A
Resolution?	[X]	___	___
Peak shape?	[X]	___	___
Full-scale graph (attenuation)?	[X]	___	___

Other:_____

ACTION: Use professional judgement to determine the acceptability of the data.

10.4 Are the lab-generated standard mass spectra of identified volatile compounds present for each sample? [X] ___ ___

ACTION: If any mass spectra are missing, take action specified in 3.2 above. If the lab does not generate their own standard spectra, make a note in the Data Assessment. If spectra are missing, contact the lab.

10.5 Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration? [X] ___ ___

10.6 Are all ions present in the standard mass spectrum at a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? [X] ___ ___

10.7 Do the relative intensities of the characteristic ions in the sample agree within ± 30% of the corresponding relative intensities in the reference spectrum? [X] ___ ___

ACTION: Use professional judgement to determine acceptability of data. If it is determined that incorrect identifications were made, all such data should be rejected ("R"), flagged ("N") - Presumptive evidence of the presence of the compound) or changed to non detected ("U") at the calculated detection limit. In order to be

YES NO N/A

positively identified, the data must comply with the criteria listed in 9.6, 9.7, and 9.8.

ACTION: When sample carry-over is a possibility, professional judgement should be used to determine if instrument cross-contamination has affected any positive compound identification.

11.0 Tentatively Identified Compounds (TIC) (CLP Form I/TIC Equivalent)

11.1 If Tentatively Identified Compound were required for this project, are all Tentatively Identified Compound reporting forms present; and do listed TICs include scan number or retention time, estimated concentration and a qualifier? [ ] ___ x

NOTE: Add "N" qualifier to all TICs which have CAS number, if missing.

NOTE: Have the project officer/appropriate official check the project plan to determine if lab was required to identify non-target analytes (SW-846, page 8260B-23, Sect. 7.6.2).

11.2 Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:

a. Samples and/or fractions as appropriate [ ] ___ X

b. Blanks [ ] ___ X

ACTION: If any TIC data are missing, take action specified in 3.2 above.

ACTION: Add "JN" qualifier only to analytes identified by a CAS#.

NOTE: If TICs are present in the associated blanks take action as specified in section 3.2 above.

YES NO N/A

11.3 Are any priority pollutants listed as TIC compounds (i.e., an BNA compound listed as a VOA TIC)? [ ] ___ X

ACTION: 1. Flag with "R" any target compound listed as a TIC.

2. Make sure all rejected compounds are properly reported if they are target compounds.

11.4 Are all ions present in the reference mass spectrum with a relative intensity greater than 10% (of the most abundant ion) also present in the sample mass spectrum? [ ] ___ X

11.5 Do TIC and "best match" standard relative ion intensities agree within ± 20%? [ ] ___ X

ACTION: Use professional judgement to determine acceptability of TIC identifications. If it is determined that an incorrect identification was made, change the identification to "unknown" or to some less specific identification (example: "C3 substituted benzene") as appropriate. Also, when a compound is not found in any blank, but is a suspected artifact of a common laboratory contaminant, the result should be qualified as unusable, "R". (Common lab contaminants: CO_2(M/E 44), Siloxanes (M/E 73), Hexane, Aldol Condensation Products, Solvent Preservatives, and related byproducts).

12.0 Compound Quantitation and Reported Detection Limits

12.1 Are there any transcription/calculation errors in organic analysis reporting form results? Check at least two positive values. Verify that the correct internal standard, quantitation ion, and average initial RRF/CF were used to calculate organic analysis reporting form result. Were any errors found? [ ] X ___

NOTE: Structural isomers with similar mass spectra, but insufficient GC resolution (i.e. percent valley between the two peaks > 25%) should be

YES NO N/A

reported as isomeric pairs. The reviewer should check the raw data to ensure that all such isomers were included in the quantitation (i.e., add the areas of the two coeluting peaks to calculate the total concentration).

12.2 Are the method CRQL's adjusted to reflect sample dilutions and, for soils, sample moisture? [X] ___ ___

ACTION: If errors are large, take action as specified in section 3.2 above.

ACTION: When a sample is analyzed at more than one dilution, the lowest detection limits are used (unless a QC exceedance dictates the use of the higher detection limit from the diluted sample data). Replace concentrations that exceed the calibration range in the original analysis by crossing out the "E" and it's associated value on the original reporting form (if present) and substituting the data from the analysis of the diluted sample. Specify which organic analysis reporting form is to be used, then draw a red "X" across the entire page of all reporting forms that should not be used, including any in the summary package.

13.0 Standards Data (GC/MS)

13.1 Are the Reconstructed Ion Chromatograms, and data system printouts (Quant Reports) present for initial and continuing calibration? [X] ___ ___

ACTION: If any calibration standard data are missing, take action specified in section 3.2 above.

14.0 GC/MS Initial Calibration (CLP Form VI Equivalent)

YES NO N/A

14.1 Are the Initial Calibration reporting forms present and complete for the volatile fraction? [X] ___ ___

ACTION: If any calibration forms or standard raw data are missing, take action specified in section 3.2 above.

ACTION: If the percent relative standard deviation (% RSD) is > 20%, (8000C-39)qualify positive results for that analyte "J". When % RSD > 90%,. Qualify all positive results for that analyte "J" and all non-detects results for that analyte "R".

14.2 Are all average RRFs > 0.050? [X] ___ ___

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be ≥ the values in the following list. If individual RRF values reported are below the listed values document in the Data Assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with red pencil.

ACTION: For any target analyte with average RRF < 0.05, or for the requirements for the 5 compounds in 14.2 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

14.3 Are response factors stable over the concentration range of the calibration. [X] ___ ___

NOTE: (Method Requirement) For the following CCC compounds, the %RSD values must be ≤ 30.0%. If %RSD values reported are > 30.0% document in the Data Assessment.

YES NO N/A

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

ACTION: Circle all outliers with a red pencil.

ACTION: If the % RSD is > 20.0%, or > 30% for the 6 compounds in 14.3 above, qualify positive results for that analyte "J" and non-detects using professional judgement. When RSD > 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

NOTE: Analytes previously qualified "U" due to blank contamination are still considered as "hits" when qualifying for calibration criteria.

14.4 Was the % RSD determined using RRF or CF? [X] ___ ___

If no, what method was used to determine the linearity of the initial calibration? Document any effects to the case in the Data Assessment.

14.5 Are there any transcription/calculation errors in the reporting of RRF or % RSD? (Check at least two values but if errors are found, check more.) [ ] X ___

ACTION: Circle errors with a red pencil.

ACTION: If errors are large, take action as specified in section 3.2 above.

15.0 GC/MS Calibration Verification (CLP Form VII Equivalent)

YES NO N/A

15.1 Are the Calibration Verification reporting forms present and complete for all compounds of interest? [X] ___ ___

15.2 Has a calibration verification standard been analyzed for every twelve hours of sample analysis per instrument? [X] ___ ___

ACTION: List below all sample analyses that were not within twelve hours of a calibration verification analysis for each instrument used.

_____

ACTION: If any forms are missing or no calibration verification standard has been analyzed twelve hours prior to sample analysis, take action as specified in section 3.2 above. If calibration verification data are not available, flag all associated sample data as unusable ("R").

15.3 Was the % D determined from the calibration verification determined using RRF or CF? [X] ___ ___

If no, what method was used to determine the calibration verification? Document any effects to the case in the Data Assessment.

15.4 Do any volatile compounds have a % D (difference or drift) between the initial and continuing RRF or CF which exceeds 20% (SW-846, page 8260B-19, section 7.4.5.2). [ ] X ___

NOTE: (Method Requirement) For the following CCC compounds, the %D values must be ≤ 20.0%. If %D values reported are > 20.0% document in the Data Assessment.

1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

YES NO N/A

ACTION: Circle all outliers with a red pencil.

ACTION: Qualify both positive results and non-detects for the outlier compound(s) as estimated, "J". When %D is above 90%, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

15.5 Do any volatile compounds have a RRF < 0.05? [ ] X ___

NOTE: (Method Requirement) For SPCC compounds, the individual RRF values must be ≥ the values in the following list for each calibration verification. If average RRF values reported are below the listed values document in the data assessment.

Chloromethane	0.10
1,1-Dichloroethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

ACTION: Circle all outliers with a red pencil.

ACTION: If RRF < 0.05, or < the the requirements for the 5 compounds is section 15.5 above, qualify all positive results for that analyte "J" and all non-detect results for that analyte "R".

NOTE: The above data qualification action applies regardless of method requirements.

16.0 Internal Standards (CLP Form VIII Equivalent)

16.1 Are the internal standard (IS) areas on the internal standard reporting forms of every sample and blank within the upper and lower limits (-50% to + 100%) for each initial mid-point calibration (SW-846, 8260B-20, Sect. 7.4.7)? [X] ___ ___

YES NO N/A

ACTION: If errors are large or information is missing, take action as specified in section 3.2 above.

ACTION: List each outlying internal standard below.

Sample ID	IS #	Area Lower Limit	Area Upper Limit

(Attach additional sheets if necessary.)

ACTION: 1. If the internal standard area count is outside the upper or lower limit, flag with "J" all positive results quantitated with this internal standard.

2. Do not qualify non-detects when the associated IS are counts area > + 100%.

3. If the IS area is below the lower limit (< -50%), qualify all associated non-detects (U-values) "J".

4. If extremely low area counts are reported (< -25%) or if performance exhibits a major abrupt drop off, flag all associated non-detects as unusable "R" and positive results as estimated "J".

16.2 Are the retention times of all internal standards within 30 seconds of the associated initial mid-point calibration standard (SW-846, 8260B-20, Sect. 7.4.6)? [X] ___ ___

ACTION: Professional judgement should be used to qualify data if the retention times differ by more than 30 seconds.

YES NO N/A

17.0 Field Duplicates

17.1 Were any field duplicates submitted for volatile analysis? [X] ___ ___

ACTION: Compare the reported results for field duplicates and calculate the relative percent difference.

ACTION: Any gross variation between field duplicate results must be addressed in the Data Assessment. However, if large differences exist, take action specified in section 3.2 above.